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**Dominion
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And Ontario Medical Journal

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TORONTO, JANUARY, 1918

Number 1

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Dominion Medical Monthly

And Ontario Medical Journal

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TORONTO, JANUARY, 1918

No. 1

Original Articles

PAVOR MEDICUS*

By A. J. WARING, M.D.

Attending Pediatricist, Oglethorpe Sanatorium and St. Joseph's Hospital, Savannah, Ga.

Since the writer's interest in pediatrics has been aroused, he has been fortunate enough to visit some of the large Eastern clinics, and observe the methods of well-known men in the examination of children. Some individuals are blessed with a vivid and retentive memory, and with the mind of the adult are able to step back into the spiritual realm of childhood. An intelligent and sympathetic psychical return to juvenile days is always an important adjuvant to the diagnostic skill of the pediatricist.

Nothing is so difficult to examine as a frightened and noisy child. The history of its particular infirmities is transmitted to the medical man through the medium of a worried, sympathetic and often too imaginative adult. Many mothers—as well as doctors—are unable to tell whether a baby is crying because it is hungry, colicky, or being jabbed by a pin. In addition, co-operation on the part of the child is an arduous matter. The pediatricist often gathers more information with the eye and the heart than he does with the ear and the hand.

In contradistinction to the noisy child is the quiet one who disconcerts the physician with serene eyes and is passively unresponsive to every friendly advance. Consciously or sub-consciously such children conceal the original impulses in emotional life that produce a neurotic symptom-complex. Patience, sympathy and a real knowledge of psychological diagnostic methods are vital with such children. To-day greater interest is evidenced in the "soul-life" of the young than ever before and its importance given due emphasis. We now know that the emo-

*Archives of Pediatrics.

tional life of even the comparative infant is not simple, but most complex in its developmental paths and manifestations.

Pavor Medicus, for example, is present in many children, its initial impulse along mental paths shrouded in obscurity. Injudicious threats by nurses and relatives "to send for the doctor" if the child is not good, etc., surrounded the unfortunate physician with a Mephistophelian atmosphere. To return to our original contention, however, much more significant is the behavior of the physician himself. The writer recalls one case where the injudicious use of a thermometer on a high-strung juvenile started a bad case of pavor nocturnus. At this point an extract from the letter of a medical student, a memory confession correlated with the adult expression of self-analysis, is most instructive.

"As a child I recall entering the office of a physician. I will describe the incident for you as vividly as it impressed me then and as vividly as I can close my eyes and re-create the scene. The room was musty and dingy—dusty, heavy books with sombre covers were carelessly spraddled on partially empty shelves. Upon a mantelpiece of dirty wood, long needing paint, were ranged several candy (?) jars. In one a small baby lay in yellow liquid, a shrunken horror, arms and legs drawn together as though the last breath (if it had breathed at all) had been one of agony. In other bottles shapeless masses were suspended that challenged a child's imagination. The doctor himself (God rest his soul) was grave in countenance, wore a heavy beard and was fumbling with some instruments that lay in front of him, an unfortunate coincidence for me. All of this I describe took just ten seconds for permanent and life-long registration. Night-terrors, habit-spasms and bed-wetting that thereafter ensued for many months were never understood by the family physician nor needless to say by my young self."

Events of this type cut deeply and with acid vigor into the emotional life of children. Such latent reasons for neurotic manifestations are usually unrecognized and invariably vital in treatment—and unfortunately not rare. By contrast, this vivid and unpleasant memory of past childhood was recently recalled when the writer visited a successful pediatricist in a neighboring county. The medical man in question was stout, ruddy, rather bald, with sparkling blue eyes—a kind of re-incarnated Cheeryble brother. He smoked too much, like most medical men, but did not chew; there was no dandruff on his collar, his shoes bore all the earmarks of a matutinal polish and he wore a small flower

in his buttonhole. On the table were children's books. There were several small white chairs for children scattered about. Some large potted ferns made the cool atmosphere within a pleasant contrast to the dusty heat without. His private office was as clean as his person and a model of what the average doctor's is not—a wide, cool room finished in white, with a cheerful fireplace rimmed in figured blue tiles. There was a box full of toys in one corner. One entire wall consisted of casement windows rimmed at the bottom with green boxes of red geraniums and ferns. Two bird-cages hung above, in one a thrush and in the other a canary. The atmosphere, psychologically speaking, made one think of a sunny-tempered old maid wistful over children never born.

The writer laughingly made this comparison. The response of the pediatricist is worth while quoting: "You have paid me the one real compliment I desire. Our profession is a wholesome, vivifying one, not a gruesome, morbid one. All children approach a physician's office with taut nerves and the dread of an unknown ngly mystery. We are 'Dark Towers' of terror. Drift back through the years and recall your early medical visits! Or dental visits! A child comes to my office, for example, ready to start or run, in a condition of emotional 'strychninosis.' He hears the birds—at once there ensues the substitution of a normal, natural and pleasurable sensation, sub-consciously implanted, for an unreasoning terror. On entering my waiting-room and office, the vision of cheerful normal objects still further allays the fears of the child. In other words, my battle is half won and the patient unconsciously moulded into a somewhat receptive mood before I even begin my study of the case."

In two hours eight children from two to six years of age were skilfully and pleasantly handled. The pediatricist never failed after a few minutes to be completely "en rapport" with his little patient. The sympathetic medium was sometimes the bird-cage, the flowers, a book, a toy, or the biblical pictures on the blue tiles about the fireplace.

In the next two days a little was learned of this modest gentleman's philosophy. He was busy and wanted responsive children with flaccid muscles. The artificial singing bird of the photographer's studio gave him the first hint. His methods save him much nervous fatigue, actually shorten his periods of physical examination, as well as render them accurate. Though not a mental healer, he firmly believes that many illnesses are shortened and crises passed because of the faith and affection he

develops in some of his patients. Though possibly some of his methods may be ridiculed, the principles of juvenile psychology displayed by this pediatricist were inherently sound. With some of the bizarre nervous disorders of childhood he is most successful. In his use of vehicles for unpleasant drugs, he exercises great care, contending that many of the disagreeable prescriptions inflicted upon children are careless exhibitions of an imperfect knowledge of pharmacology and intensify pavor medicus. His physical examinations are models of skill and never begin with the procedures alarming to children—a study of the throat, ear or rectum—no instruments are ever visible until a need for them arises, then they are quickly and deftly used and placed out of sight.

Can one say more? If the writer has proved his case, the medical reader can possibly derive a little food for thought from some portions of this article. Is it not true that a lack of sympathetic understanding in handling children is a just accusation against many physicians, and—shall we say—an injudicious method of increasing the clientele of the psychiatrist?

TWENTY-FOUR DRUGS MOST USEFUL IN DIGESTIVE DISORDERS*

By A. L. BENEDICT, A.M., M.D., F.A.C.P., BUFFALO.

Good therapeutics require the careful choice of drugs, without limit in number. One will use nearly 100 chemie substances, locally or incidentally to disinfection, anesthesia, etc., in the office, and unless limitation of practice is along peculiar lines or unless he refers patients for attention to minor details, the specialist will require almost as wide a variety as the general practitioner. In the course of a few years the total number of drugs prescribed, if one attempts to be discriminating, will run up to several hundred, although the majority will be employed at intervals of months or even years. For example, oleum tiglii would count in the writer's total, though used less than half a dozen times in twenty-nine years of practice. However, present conditions involve important economic considerations which render it advis-

* The Therapeutic Gazette.

able, so far as possible, to standardize therapeutics, and this may serve as an apology for presenting such a list as the following:

1. Strychnine. This may not only be used as the sole representative of *nux vomica* and several other plants, but to replace all simple bitters. It is also, on the whole, the best general stimulant that we have, and for the very reason on which it has been most strongly attacked—the fact that it acts solely by increasing response to accidental but inevitable excitoreflex stimuli.

2. Hydrochloric acid. The great majority of gastric cases—not of interesting cases, not necessarily of those encountered by specialists—include the suppression or diminution of this secretion as an important if not as the essential factor. Its indiscriminate use is, of course, unwise, even dangerous, but it is useful in a large proportion of wisely selected cases, and as the failure of ferments is, in the great majority of instances, due to the lack of this substance to complete their synthesis, and as the apparent failure of ferments is still more frequently due to lack of acid alone, the ferments being fully formed, it serves the purpose so far as any artificial supply of a lack can do so, in at least 95 per cent. of instances of what may properly be termed gastric indigestion.

3, 4, 5, 6, 7, 8. Calomel, to the exclusion of other mercurials, cascara extract, Seidlitz powder, phenolphthalein, castor oil, pure mineral oil, cover the ordinary range of cathartics, although various others cannot be regarded as strictly dispensable, and there is no field in which discriminating therapeutics is better illustrated than in the choice of cathartics.

9. Bismuth subcarbonate. This is, on the whole, the most generally available preparation of bismuth, and neither cerium nor any other insoluble, comparable powder is so good. Most of the complaints as to the toxicity of bismuth are due to impure preparations, if, indeed, they may not all be explained in the practical sense, and granting common sense as to dosage and continuance, as due to arsenic contamination.

10. Orthoform. While various other synthetic local anesthetics may be preferred in individual cases, and while cocaine itself cannot be entirely eliminated, either as a gastric sedative or to check certain types of diarrhea, in dealing with habitués, or to anesthetize the throat for the passage of the stomach tube, for esophageal and rectal and sigmoid work (basie), orthoform may be used almost entirely for internal administration, either for directly therapeutic purposes or, in addition, to gain information as to the probable location of a pain.

11. Salacetol. Up to date this seems to be the most efficient and least toxic internal anti-septic, conceding that the term cannot be made to conform to bacteriologic tests, but can be used only in the qualified sense applicable to clinical medicine.

12. Animal charcoal. This is a better absorbent than vegetable, but it must be used dry (though subsequently mixed with water) and in appreciable dose.

13. Kaolin. Rather recently the writer has become convinced that there are cases in which the need of an absorbent in large dose, and even the claim, put into popular terms, that specific and other bacteria can be "buried alive," require the admission of this substance as a necessary item in the armamentarium. It must be pure, in the sense of being free from all toxic ingredients, and it will not perform the miracles described by the over-enthusiastic.

14. Sodium bicarbonate. This is, on the whole, the safest and most efficient corrective of acidosis. In connection with auscultation it affords a convenient and, with experience, a fairly reliable diagnostic test of the presence or absence and even of the degree of gastric acidity. It is the only practical drug in the treatment of extreme hyperchlorhydria or acid fermentation, and the objection that gas is produced and that the effervescence stimulates further acid secretion is by no means so valid as formerly believed.

15, 16. Magnesium oxide and magnesium hydroxide cannot be dispensed with, however.

17. Ammonium benzoate is apparently the best antalkaline, so far as the general system is concerned, as indicated by the urine, and even the tendency to deposit alkaline calculi in the urinary tract cannot be ignored in the treatment of the alimentary organs. This is true both because a sincere limitation of therapeutics cannot be so rigid as to include the neglect of other conditions, and because such calculus formation is very directly dependent on conditions of the alimentary canal.

18. An organic silver compound. Except as a reagent, silver nitrate can be excluded entirely, but some preparation of this drug is absolutely necessary for the successful treatment of pharyngeal and gastric conditions and of the accessible lower foot or so of the bowel. The writer prefers not to express a choice among the various claimants.

19. Cr  d   ointment. This, or some improved form of colloid metal, must be included here until it has been definitely proved that it has no value either in the treatment of incipient septic

conditions, as of the appendix and gall-bladder, or in stimulating leucoeytosis, as in tuberculosis and other conditions.

20. Hydrogen peroxide is required, not only as a reagent and as a local application in the strict sense, but through the tube or by swallowing, in the treatment of the stomach, by enema in various conditions of the larger bowel. With it may be included the peroxide of magnesium, the perborate of sodium, and various peroxydes, whose separate enumeration would considerably extend the list.

21. Menthol. While admitting that the exact physiologic action of this drug, or of the various preparations of peppermint which it may supersede, though not always conveniently, is not based on absolutely satisfactory experimental evidence, it is clinically extremely valuable, though not always wisely used.

22. Camphor, in the specific sense, or a camphor in the general sense, or a volatile oil of some kind, is also required in those cases in which the apparent action of menthol in increasing the local blood supply or its symptomatic burning is contraindicated, while the general indication remains. At present the writer is compelled to use several such preparations, but it is probable that a single agent could be demonstrated to be sufficient.

23. Adrenalin is mentioned, both for its action on certain forms of hemorrhage and because it checks certain manifestations of hyperthyroidism and hyperchlorhydria and serves as a circulatory tonic in conditions practically inseparable from those strictly alimentary.

24. Thyroidin or thyroid extract, the ideal form not being as yet positively demonstrated, if indeed developed, must be included, since the overlooking of inadequate thyroid function would delay indefinitely the relief of many conditions which present themselves as alimentary disorders.

This list does not include morphine, general anesthetics, cardiac drugs, and others often necessary in the general management of alimentary cases, nor does it include cannabis indica, diuretics, a wide choice of cathartics, glandular derivatives more or less indicated on general principles but not so well demonstrated practically as adrenal and thyroid extract, digestive ferments rarely indicated but almost imperative when they are really lacking, and a variety of other drugs without which practice cannot be entirely satisfactory.

THE TREATMENT OF LEUKORRHEA WITH LACTIC ACID BACILLI*

(J.A.M.C.)

FRANK BENTON BLOCK, M.D., AND THOMAS H. LLEWELLYN,
M.D., PHILADELPHIA.

It is our purpose to give a brief summary of the experiences that we have had in the treatment of leukorrhea by means of the local application of lactic acid bacilli. Our work has extended over a period of two years, which we regard as a sufficient length of time thoroughly to digest our results, and separate the wheat from the chaff of over-enthusiasm. Much has previously been done by other investigators in the search for a cure in obstinate cases of leukorrhea, and although we shall not quote the work of others, we gladly give credit and priority wherever it may be due.

Normally, in the healthy adult virgin, the reaction of the vaginal secretion is acid, as a result of the activity of the bacillus of Doederlein. In the patient who is suffering from chronic leukorrhea, however, with the exception of one type, of which we shall speak later, the reaction of the vaginal secretion is distinctly alkaline. After observing these facts in a large series of cases, we formulated the theory that if we could change the reaction of the vagina from alkaline to acid, and maintain an acid reaction, we might be able to control or, perhaps, cure the leukorrhea.

The use of chemicals, drugs and douches was immediately discarded from our work, for the reason that previous experience had shown them to be but ephemeral in effect, and utterly inadequate, so far as anything like a lasting result is concerned. Believing that the alkaline reaction of the vagina in cases of leukorrhea was due to the activity of saprophytic bacteria, which in their proliferation completely killed the normally present Doederlein bacilli, we felt that if we implanted into the vagina a non-pathogenic, acid-forming organism, we could overgrow these saprophytic organisms, and our problem would be solved. At this point let us state that, although our results have been en-

* From the Department of Gynecology, University of Pennsylvania School of Medicine.

couraging in many ways, the problem proved to be entirely different when put to a practical test.

Although many organisms might have been used in this work, we selected the Bulgarian lactic acid bacillus because of its accessibility, and also on account of the enthusiastic reports of its use in intestinal saprophytic conditions. Through the kindness of two pharmaceutical laboratories, we were supplied with tablets of lactic acid bacilli and bouillon cultures of the same organism. These, together with a stock culture obtained from the William Pepper Clinical Laboratory of the University Hospital, constituted the source of our supply.

In the beginning of our work we gave all the organisms an equal trial, and found that the best results were to be obtained from the use of bouillon cultures, provided the culture was reasonably fresh. As a practical measure, however, we soon learned that the use of cultures was out of the question, on account of the difficulty of always having a fresh culture on hand. In contradistinction to this drawback in the use of cultures, we found that the organisms compressed in tablet form with lactose were reasonably active and potent over periods of many weeks, provided the simple precaution of keeping the tablets on ice was observed. To satisfy ourselves that this was the case, we had several of the tablets from one laboratory cultivated and obtained living organisms. Without going into unnecessary detail regarding the various methods of application that we have employed in the development of our work, we shall, at present, merely describe the technic we employ, and then summarize the results obtained in the various types of cases treated.

TECHNIC.

The patient is placed in the usual dorsal gynecologic position, and a thorough pelvic examination made, including smears, when indicated. A bivalve speculum is then inserted into the vagina, and the cervix and the upper vaginal canal exposed. The reaction of the vagina is then taken by moistening a piece of litmus paper in the vaginal secretion, after which the vagina is thoroughly cleansed of mucus and leukorrheal discharges by means of a simple alkaline spray, and the vagina is then dried with cotton pledgets. A lactic acid tablet, preferably one that is readily soluble and made with a lactose base, is placed in a medicine glass and moistened *with one or two drops* of sterile water dropped on the tablet by means of a small pipet or eye-

dropper. It is important not to supply more than a very few drops of water to the tablet; otherwise the tablet will completely disintegrate and cannot be readily handled.

If the proper kind of tablet is used, and only enough water is applied to moisten it, it will attain the consistency of thick cottage cheese, and may be readily lifted in toto by a pair of forceps. It is then placed in the upper vaginal canal, and spread over the walls and on the cervix by means of the forceps. If the tablet is of the proper consistency, it will adhere to the vaginal mucosa wherever placed, and will show no tendency to run out of the vagina, as is the case with ordinary solutions. The speculum is next withdrawn half way, with its blades open, to allow the upper vaginal canal to close over the tablet that has been applied. Finally the blades are closed and the instrument is withdrawn. No tampons are applied. The patient is instructed to return in a week, and all douching is absolutely interdicted. On her return, the same technic is repeated, and she returns once a week for a reimplantation of the bacilli, until the vagina is acid—a result which in a favorable case is attained in about three or four weeks. After the reaction has become acid, no treatment is given so long as it remains so, although the patient returns at gradually increasing intervals to have the reaction taken. In favorable cases it is usually found necessary to reimplant organisms at intervals of from three to four weeks, since, after that time, the organisms seem to die, or at any rate to lose their potency. We might, therefore, state here that the treatment is seldom a permanent cure, but rather a good palliative measure, requiring attention about once a month and superseding douches.

TYPES OF CASES TREATED, AND RESULTS.

The cases that we have subjected to this treatment might be conveniently classified in the following groups, which we shall consider separately: Vulvovaginitis of children, specific and non-specific; endocervicitis, both simple and gonorrheal, and senile vaginitis, natural and artificial.

In the treatment of vulvovaginitis in children this method is of little avail as long as gonococci are apparently present. When, however, the gonococci have largely disappeared, the use of the lactic acid bacilli seems to be of some value in reducing the discharge and in lessening the vaginal irritation. In many cases, however, the symptoms will return on the cessation of the treatment. In the non-specific types of vaginitis in children, the re-

sults are more encouraging, and in a good percentage of the cases treated, we believe that a cure has been established. As some difficulty is often encountered in the introduction of the bacilli into the vagina of children, we have of late introduced the dry tablet into the vagina, and then injected a few drops of water, thus allowing the tablet to dissolve inside the patient. An interesting point we have noted in connection with our work with children is the fact that, before the onset of menstruation, the reaction of the child's vagina is almost constantly alkaline, whether or not disease is present, and it was with considerable difficulty that we obtained an acid reaction in some of these cases.

In the consideration of leukorrheal discharges during the child-bearing period, we wish to call attention to the fact that our results were practically nil in cases in which there was a gross pelvic pathologic condition. Similarly, we have nothing encouraging to offer in the treatment of gonorrheal endocervicitis, or when cervical erosion, laceration, or another evident pathologic condition is the cause of the leukorrhea. Such conditions must be treated along the usual lines before any attempt is made to apply the lactic acid treatment. After the exclusion of such cases as we have mentioned, there will be a large number of cases in which the leukorrheal discharge is the chief symptom, and in which no definite disease can be determined. Cases of this type we have classified under the heading of non-specific catarrhal endocervitis. They will almost uniformly present an alkaline reaction in the vagina, and, in approximately 50 per cent. of the cases, will respond to the treatment we have suggested.

Finally, we come to the consideration of senile or atrophic vaginitis, that most distressing condition which occurs in women past the menopause, characterized by a thin, yellow, malodorous, irritating discharge, and accompanied by intense itching of the genitalia, and sometimes by urinary frequency and burning. The cause of this syndrome is the lack of ovarian internal secretion, due either to natural atrophy of the glands at the time of the normal menopause, or else to their surgical removal. It is in this type of case especially that we have had our best results, and the strange fact is that these cases always show an acid reaction of the vaginal secretions. But, notwithstanding this fact, the application of lactic acid bacilli gives prompt relief, which we have interpreted as being due to the overgrowth of acid-forming saprophytes by the less irritating lactic acid bacilli.

These patients, as a rule, have no relief from douches, or local applications of the usual remedies, and wander from one dispensary to another in search of a cure. Their plight is distressing, and as most of them have been treated by many other physicians before coming into our hands, we feel particularly gratified with the results we have obtained. It must be distinctly understood, however, that we do not claim to have obtained a permanent cure in any of these cases, although we do know that many of them have gone several months without treatment and without symptoms. In the average case, it is necessary to implant the bacilli at monthly intervals, with perhaps a few months' intermission occasionally. While we shall not give actual figures, we believe that 80 per cent. of our cases of senile vaginitis, whether following the natural or the artificial menopause, have responded to this treatment.

CONCLUSION.

We wish to state that this work is offered merely for what it may be worth, and we feel that in selected cases it will constitute a most effectual palliative treatment, being particularly acceptable to the patient on account of the cleanliness and convenience that are consistent with its proper execution.

THE TREATMENT OF PNEUMONIA IN CHILDREN*

By H. BROOKER MILLS, M.D., PHILADELPHIA, PA.

Over-treating is undoubtedly practised very extensively, particularly in children, and especially along the line of stimulation and nauseating cough mixtures.

I wish to emphasize Dr. Price's reference to fresh air in the treatment of pneumonia, as he says it should be oxygen-laden air, not extremely cold air. I am sure much harm has been done by exposing a child with pneumonia to extremely cold air, sometimes even to such an extent that it has been unbearable for the attendant.

In no disease is it more important to have what the doctor refers to as a "trained attendant" in charge than in pneumonia:

* This paper constitutes, essentially but with slight changes, the author's discussion of Dr. Price's admirable essay upon this subject before the Pediatric Section of the Medical Society of the State of Pennsylvania, and which, with the discussion, appeared in the "Penna. Med. Jour.," Nov., 1917. Reprinted from the Medical Council.

nor is there any disease of childhood in which it is more necessary to keep the over-anxious mother from handling the child.

As to the dietetic care referred to in the paper, which I agree is all important, my rule is in all cases of irritable stomach, poor appetite and impaired digestion, to feed the child by enteroclysis, using 4 ounces of a 5 per cent. solution of glucose by Murphy drip, 20 drops to the minute, every four hours. In cases of breast-fed babies suffering with pneumonia, in addition to the author's suggestion to withdraw the milk from the mother's breast and feed to the baby through a Breck feeder or with a dropper, if necessary, I would add that at times, especially during very high temperature, when food will not be borne well, it is my rule to peptonize it before giving it to the baby. Even in older children it has been my experience that peptonized milk will frequently be borne better than whole milk diluted.

Where prolonged stimulation is necessary, or where the child, for any reason, is getting insufficient nourishment by mouth, I have gotten very good results from the use, by enteroclysis, of strong hot coffee, 4 ounces, by Murphy drip, 20 drops to the minute, every four hours. To this I sometimes add a drachm of whiskey.

EXTERNAL THERAPY.

With the recommendation of the use of counter-irritations and inhalations, rather than medicine by mouth, I heartily agree, and my own preference for the former is dry cupping and hot mustard applications. The latter is made by adding a teaspoonful of mustard to a pint of hot water, in which a piece of flannel of four thicknesses is wrung out and applied to the chest for twenty minutes, every two, three or four hours, as needed.

MEDICATION.

For the inhalations, in addition to eucosote and benzoin mentioned in the paper, I would add tincture opii camph. and oil of eucalyptus.

I cannot agree with the author's recommendation of opium for restlessness in the treatment of pneumonia in children, as I have yet to see any necessity for its use. My method of treatment for restlessness is the same as that for high temperature, *i.e.*, ice bag to the head, hot water bottle to the feet, tepid sponges and high colonic irrigations. Upon the last named I rely particularly in cases of extreme restlessness, and they have never failed to give results. At the same time, I am accomplishing two other objects referred to by the author, *i.e.*, mini-

mizing toxemia and securing elimination through the kidneys and bowels.

Neither can I agree with the recommendation of an initial dose of castor oil, except the child is suffering from diarrhea, as I feel the constipation following the use of castor oil, after its first action has been secured, would in itself be a complication.

The milk of magnesia also recommended I would consider much better, but my own preference is for a course of calomel in powder form given dry on the tongue, followed by the milk of magnesia or a saturated solution of magnesium sulphate in orange juice.

STIMULATION.

At to stimulation, pediatricists and clinicians in general differ very much on this point. I am very glad the author advises against their routine employment, particularly stimulants in alcoholic form. Digitalis and the ammonia preparations especially should be avoided because of their tendency to cause digestive disturbances. My preference for stimulation is for nitroglycerine in cases of cyanosis with a mottled appearance of the face; strophanthus in cases of rapid but regular pulse, and strychnia in cases of broken compensation, all given hypodermatically when a trained attendant is in charge. I am also very fond of caffeine sodio-benzoas, by hypo, in certain cases.

I heartily approve of the recommendation of atropine for respiratory failure, which I also prefer to give hypodermatically, and, when necessary, oxygen inhalations; and I also strongly endorse the author's statement that such remedies will rarely if ever be needed if the proper amount of oxygen-laden air, not too cold, is afforded the patient throughout the entire illness.

I have had no experience in the use of the hot mustard bath for cyanosis and depression, but can readily understand why it would probably be of decided benefit in some cases.

HYDROTHERAPY.

Balneotherapy and hydrotherapy, water within and water without, are my sheet anchors in the treatment of this disease in children, and it is my opinion, based upon experience, that this form of treatment, intelligently and persistently administered from the beginning, will obviate the necessity of using nauseating cough mixtures, antipyretics and stimulants, thus saving the gastro-intestinal tract, upon the condition of which, as Dr. Price states, recovery may depend, as well as minimize the frequency and severity of the complications so often encountered in this disease.

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TORONTO, JANUARY, 1918

No. 1

COMMENT FROM MONTH TO MONTH

Trinitrotoluene, or T.N.T., generally called, clinched its high explosive qualities with a vengeance at Halifax, as the munition ship *Mont Blanc* was loaded with shells, and this substitute of picric acid as a filler of shells, increasingly used abroad, had more recently been used on this side of the Atlantic for a like purpose. The wonder is that a ship of that character should be sent, or even allowed, into a harbor like Halifax.

T.N.T. is manufactured from toluene, one of the by-products recovered from coal tar by fractional distillation, and like naphthalene, is homologous with benzene. In other words, toluene is one of the intermediate products in the aniline color industry, and is, therefore, of interest to physicians in industrial centres, as there is danger to health in both its manufacture and handling. By special processes toluene is treated with nitric and concentrated sulphuric acids; whilst in the conversion of phenol into picric acid (trinitrophenol) the use of a nitro-sulphuric acid is also necessary. T.N.T. is an explosive said to possess the strength of nitro-glycerine, having a lower melting point than picric acid, and being more stable.

From recent cases published in English medical journals, fatal results are sometimes due to chronic poisoning, and the great and speedy development of munition factories in America and Canada manifestly marks it as a product in which the utmost carefulness must be exercised in its manufacture and handling. It is readily absorbed through the skin, the next important avenue of absorption being the respiratory tract; with difficulty through the mucous membrane of the intestinal canal. The main channel of excretion is considered to be the urinary tract, although a certain amount may be excreted through the intestine.

The symptoms of poisoning may manifest themselves in smarting of the eyes, occasional bleeding at the nose, tightness in the throat, dry cough, bitter yellow sputum, nausea, vomiting, anorexia, sometimes jaundice, mental depression, and blurred vision.

In order to reduce the risk of poisoning to the minimum, attention should be given to the planning and construction of workrooms, to the separation processes, to the conveyor systems, methods and processes employed, sanitary precautions on the part of the workers, hours of labor, medical supervision. Workers should be urgently required to report promptly to the physician of the company where the product is manufactured or handled on the very first appearance of any sickness whatever.

THE CARREL-DAKIN SOLUTION

We have received several inquiries concerning the manufacture of Dakin's solution from chlorine gas and sodium bicarbonate which we referred to editorially in the November issue of *The Journal* as a great improvement on the original method of manufacture from bleaching powder ("chloride of lime").

We had in mind the apparatus made by Wallace & Tiernan, 137 Centre Street, New York (which costs \$70, including one 12-pound cylinder of chlorine), and that made by the Electro-Bleaching Gas Company, 18 East Forty-first Street, New York. Both have been employed with satisfaction by Carrel at the Roewe-

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M^ontreal

feller Institute War Demonstration Hospital. Made with chlorine gas, using either of these apparatus and disregarding the initial outlay, the Dakin solution will cost less than two cents a liter. For ease of manufacture and low cost this method is excellent for large hospitals. For use on a small scale, as in the patient's home, the sanitarium or the office, the best method of making the Dakin's solution, as far as we know, is with ampoules of liquid chlorine and of soda (Johnson and Johnson method). Thus made, the solution will cost about 30 cents a liter, but it can be made "on the spot" and very quickly and without any special apparatus, and it involves no initial expense.

Chloramine-T (para-toluene-sodium-sulpho-chloramide), also developed by Dakin and known in this country under the trade name of "chlorazene," is, like the sodium hypochlorite solution, non-injurious to the tissue. It is rather less strongly antiseptic and somewhat less powerful in breaking up blood clots than "Dakin's Solution," and is not to be preferred, therefore, for deep wounds and serious infections. It is excellent for less severe infections and for superficial wounds and may thus be employed in paste or in solution made from powder or tablets. These are manufactured by The Abbott Laboratories.—W. M. B. *Am. Jour. of Surgery.*

Dr. J. Dunfield has moved from Petrolia to St. Catharines.

Major P. Burnett is appointed to command the Red Cross Hospital at Buxton, England, replacing Colonel Guest; Major L. B. Murray is to command Uxbridge Convalescent Hospital, replacing Lieutenant-Colonel W. Webster, who assumes command at Bramshott, replacing Major H. E. Kendall; Major G. B. Peat, is to command the Patricia Hospital at Ramsgate, replacing Lieutenant-Colonel A. J. Mackenzie, who assumes charge of the Medical Section at Ramsgate.

In a registration booth in San Francisco an old colored woman had just finished registering for the first time.

"Am you shore," she asked the clerk, "dat I's done all I has to do?"

"Quite sure," replied the clerk; "you see, it's very simple."

"I'd ought to knowed it," said the old woman. "If those fool men folks been doing it all dese years, I might a' knowed it was a powerful simple process."



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News Items

Captain Roy Coots, C.A.M.C., Toronto, is home on sick leave.

The Government of British Columbia has made a grant of \$10,000 to the Kootenay Lake General Hospital.

Dr. Chas. J. C. O. Hastings, M.O.H., Toronto, has been elected President of the American Public Health Association.

Dr. F. N. G. Starr, Toronto, has been elected Second Vice-president of the Clinical Congress of the American College of Surgery.

Captain F. G. Gurd, R.A.M.C., formerly of Montréal, has lately been appointed Specialist in Surgery at the Adler Hey Hospital, Liverpool, England.

Captain Arthur M. Fisher, R.A.M.C., Montreal, is reported killed in action; and Captain K. A. McNish, C.A.M.C., Glace Bay, N.S., as having died of wounds.

The Government of New Brunswick are taking a survey of health and sanitary conditions in that Province, preliminary to the establishment of a Health Department for that Province.

Lieutenant-Colonel George W. Badgerow, C.A.M.C., who practised in Toronto twenty years ago, but has for several years been in London, England, has been appointed Consulting Surgeon to the South African Eye and Ear Hospital, Richmond, England.

The organization of the new Canadian Special Hospitals is authorized as follows: Westcliffe Eye and Ear Hospital, Folkestone, 400 beds; King's Canadian Red Cross Hospital, Bursley Park, 200 beds; Affiliated Hospital, Clarence House, Roehampton, 106 beds.

Dr. F. C. Harrison, the Superintendent of the Home for the Incurables, Toronto, has made a report for the past hospital year. There were 324 patients under treatment during the past hospital year, and there were 74 deaths. The financial statement showed an overdraft of over \$9,000.

The Military Cross has recently been awarded to the following Captains of the C.R.M.C.: Thomas Herbert, John Philip Selby Catheart, Franklin Fletcher Dunham, Emmet Andrew McCusker, Arthur Allan Parker, William Henry Scott, J. Charles Sutherland, James Walter Woodley. Also to another Canadian in the R.A.M.C.—Douglas Creighton.

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children, smaller quantities in proportion to age. For the ailing or anaemic child, ten to fifteen drops added to the ordinary food has been found highly beneficial. In brain fag, exhaustion from over study, worry, late hours, etc., it acts as a splendid restorative or "pick-me-up."

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Publisher's Department

THE PNEUMONIA CONVALESCENT.—In spite of all of the modern advances in scientific therapy, and the improvements in the general handling and management of acute infectious diseases, Acute Lobar Pneumonia still deserves the title ascribed to it by Osler: "The Captain of the Men of Death." There are, however, especially during the Fall and Winter months, many cases of the lobular or irregular Pneumonia that so often complicates or follows La Grippe. When this condition supervenes it is more than likely to follow a sub-acute or chronic course and convalescence is frequently long delayed. Under such circumstances, in conjunction with treatment designed to hasten restoration, a general blood tonic and vitalizing agent helps materially to shorten the convalescent period. Pepto-Mangan (Gude) is of much value in this field, because it not only increases the solid elements of the blood, but also acts as a true tono-stimulant to the organism generally. As Pepto-Mangan is free from irritant properties and constipating action, it is especially serviceable in the reconstructive treatment of the devitalization following the Pneumonia of the aged.

NATURE'S COMBINATIONS VS. SYNTHETICS.—Drugs derived from plants as nearly in their natural combinations as possible meet nutritional conditions of the germ-plasm, which is not the case with synthetics. It would be strange indeed if such were not the case, as the latter act upon the system as foreign bodies, depressing and paralyzing the functions or setting up irritation until thrown off or eliminated if absorbed. They may have their uses, but are not tonic to neuron-tissue nor molecular upbuilders, as are natural plant drugs. Sanmetto is one of the products from plant elements wrought in the wonderful laboratory of Nature, which are assimilable and nourish while they heal, as opposed to the artificial elements wrought in the chemical factories, whose actions upon the human economy are those of foreign bodies, irritating and depressing, until thrown off by the conservative and defensive forces of the body.

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TORONTO, FEBRUARY, 1918

No. 2

Original Articles

MEDICAL PREPAREDNESS IN THE GREAT DRIVE FOR DEMOCRACY*

By JOSEPH COLT BLOODGOOD, BALTIMORE.

Chairman Committee on Preparedness, Southern Medical Association.

The speakers who have preceded me are veterans of the regular corps of the British, French and United States armies. The "R" in M.R.C. really stands for "raw recruit," and this audience will have the enjoyable opportunity to listen to a combat of words between veterans and a raw recruit.

The medical profession of this country is urged by this raw recruit to listen to the messages from France. Colonel Derele, Colonel Goodwin, Sir Berkley Moynihan, Major Crile have spoken.

The cosmic message from those facing death is daily published. The Russian people have given 6,000,000 of their soldiers, because of inferior equipment with modern guns, and prevented France from being crushed while Great Britain and her colonies gathered her strength. Italy has helped by pushing the Austrians until Russia's internal conflict released Germans for the blow at Italy.

France and Great Britain are more than holding on the Western front. They are driving Germany, protecting us until we have joined with all our forces.

You have heard Colonel Derele's dramatic remark that in the beginning of the war France intimated to Germany to stop, and they stopped. You heard Colonel Goodwin and Sir Berkley describe how *the thin line held* in the Battle of the Marne.

These nations have fought our battles for three years and more. Our time has come. The raw recruit who speaks simply transmits messages from our Allies and from comrades in our own army in Europe.

* *Maryland Medical Journal.*

The entire nation is called now. The test of democracy is at hand.

Never before has the medical profession been given such an opportunity to set the high example of patriotism and service.

The time has passed for any individual member of the medical profession of this country to decide for himself as to whether his services are required, or where.

All must volunteer.

We can and must draft ourselves.

MEDICAL PREPAREDNESS.

At home it should be chiefly preventive medicine and sanitation. When our army is in France, or elsewhere, the great medical problem is surgery.

At home, Federal, State, City and County Health Departments and the Medical Departments of the industries must combine and co-ordinate their activities to protect the entire population and all the industrial workers from disease, and so release more physicians for the army.

If these health departments are given the means and the authority, the number of cases of disease will be so greatly reduced that many physicians and surgeons would have little or nothing to do, and if there were no war demanding their services, they would be forced into other occupations anyway.

In the army, sanitation and preventive medicine is largely in control of everything, even venereal diseases and alcohol can be and are controlled in those places where public sentiment and civic authority permit the enforcement of existing regulations for the zones outside the camps, for example at Camp Greenleaf, Fort Oglethorpe, Georgia.

At the front, the great as yet unsolved problems in preventive medicine have to do with the extermination of body vermin and rats in the trenches.

The great medical problem in this war is wound treatment.

Victory cannot be won without wounds. These wounds must be healed. When a soldier falls, his life, his present and future comfort, happiness and usefulness, are in the hands of the medical and nursing professions.

The wounded soldier must be so treated that he either returns to the front fit to fight, or home fit to work.

Peace surgery must give way to war surgery.

If anyone must suffer, it must not be the men fighting our battles and preserving the life of the nation.

Soldiers in immense numbers are required to win this war, and we must have specially trained physicians, surgeons and nurses to care for them.

Should the medical profession volunteer *en masse*, and so draft themselves, it will be enforcing an example on the industrial workers who are asked to forge the guns and build the ships.

Ships are essential for the transportation of the Republic's great army and all the things that must accompany this army. These men must not be allowed to land in France without guns of sufficient calibre to protect them, and without numberless eyes in the air to guide the army and its guns.

Ruthless war is a threatening world-disease. When ruthless war wins, liberty and all that liberty-loving people cherish for themselves and posterity, and for the world, is replaced by slavery.

Centuries of effort to give liberty to the world are lost.

Oppressed peoples must again begin the long struggle.

Never before has one group of peoples faced such a catastrophe of total destruction by another group.

Which type of people shall prevail? The result is practically in the hands of liberty-loving free America.

MEDICO-MILITARY PREPAREDNESS.

In the standardization of hospitals about to be begun in the United States the question to be asked and solved is: What is best for the patient? This problem cannot be solved unless we have a sufficient record in the hospitals and a follow-up system.

In war efficiency the question is: What is best for the soldier?

In the special training of a civil physician or surgeon for military duty he first must have a degree from a recognized medical school. Then he must pass the physical tests. Now he is a candidate for commission.

Every officer commissioned in the Medical Reserve Corps should start with this physical fitness.

The first requirement, however, is a spirit generated by belief in the cause of the war and the urgent necessity of the hour. The spirit leads to volunteering of service.

The commissioned candidate is now ready for the special training in his military and medico-military duty.

At the onset there are two large groups or classes:

One group is trained for duty in the zone of advance from a regimental medical officer to the evacuation hospital.

In this group the age should be 45 years and less. The physical requirements are greatest.

The second group are trained for the evacuation, base and home hospitals. Here the age of many may be between 45 and 55. The physical requirements are less.

In the zone of advance purely military and medico-military requirements are greatest with the regimental officer, and least in the evacuation hospital, while purely clinical requirements are least on the firing line, and grow greater and should be of the highest degree in the evacuation hospital.

Each civil physician or surgeon who enters the Medical Reserve Corps starts with a varying degree of purely clinical knowledge and experience. Few, if any, have had military training.

Every candidate, if possible, should have a certain amount of special teaching in the military and medico-military duties of the army. Those finally selected for the zone of advance receive further training in their special military, medico-military and purely clinical requirements. Those selected for duty in the evacuation hospitals and the zone of the interior to the home hospitals, should have further intensive instruction in purely clinical work, which this war has demonstrated to be different, in sanitation, medicine and surgery from the requirements in practice at home in time of peace.

Much of this training in military, medico-military and clinical work in sanitation, medicine and surgery should be done in this country in the Officers' Training camps, in the great cantonments and in the other training camps, and in the special post-graduate schools which have been established.

The Officers' Training camps have been running to their full capacity at Forts Riley, Benjamin Harrison and Oglethorpe. The training camp, Greenleaf, at Fort Oglethorpe, will probably be greatly enlarged.

Special post-graduate courses have been established in orthopedic surgery, radiology, neurological surgery, oral plastic surgery, fractures, the Carrel-Dakin method of treatment of infected wounds, the treatment with chloramine-T; a school of hygiene and sanitation has been established at Fort Oglethorpe; special laboratory courses are being established.

These special courses in purely clinical work in the different specialties have not only been organized in the medical departments of great universities, but in connection with the base hospitals in all cantonments. The surgeon-generals of the army, navy and public health service, all recognize this necessity. No member of the Medical Reserve Corps should for a moment con-

clude—no matter how high his position in the surgical world—that he is ready to meet the purely clinical problems of military medicine and surgery without some intensive instruction in the special problems.

Military and medico-military training begins in a Medical Officers' Training camp. Every candidate should at least apply for this training. The training is continued in other camps. Some officers, unfortunately, must get it there without the preliminary course in the Medical Officers' Training camps.

THE PROBLEMS OF WAR SURGERY AND MEDICINE.

From the firing line to the home hospital there are at least four important stages, each with its special problems.

In the first stage—on the firing line—the wounded are collected, and receive a primary dressing and a primary fixation. The problems here are of efficient, rapid fixation to allow transportation on a stretcher. This is a combined military and clinical problem.

The second stage is one of transportation, and the problem is chiefly military.

The third stage is the evacuation hospital, and the problem is wound treatment.

The fourth stage is the base and the home hospital, and the problem is chiefly reconstruction and re-education.

On the firing line there may not be much to be done beyond the primary dressing and the primary fixation, but what little should be done, must be done by the regimental surgeon, and medical corps is the foundation of a surgical treatment, which ultimately makes the man return to the front fit to fight, or return home fit to work.

There is no agreement as to the value of an antiseptic in the primary dressing. It may be of value in wounds of lesser degree, but in the huge shell wounds at the present time it seems useless and a waste of precious minutes to attempt any disinfection. The wound should be simply covered with gauze.

The most important and difficult procedure is the primary fixation in splints or on a stretcher for transportation. In view of the number of the wounded this primary fixation must not only be accomplished with great efficiency, but rapidly.

The Allen method of fixation, with extension on the army stretcher without splints, appeals to me as the best. This will be published shortly in the *Military Surgeon*.

However, we should not cease to dream, or stop in our search for a method of disinfecting the huge shell wound at the primary

dressing. If we could find an antiseptic or a serum which would prolong the stage of contamination and put off the stage of infection, it would be an epoch-making discovery.

All agree that the best results are obtained when a wounded soldier is brought in contact with a well-trained surgical team, in a fully equipped hospital, in the best condition and in the shortest space of time. I am emphasizing the *best condition* and the *shortest space of time*.

The best condition is in the control of the regimental surgeon and his enlisted medical-corps men. It depends upon the rapid collection of the wounded, and the rapid and efficient primary fixation in splints or on the stretcher.

The shortest space of time is in the hands of the ambulance company. This transportation should be made with the least number of transfers, and, if possible, with no re-dressing, no change of the splints, and no change from the stretcher. During transportation, shock, if possible, should be prevented or treated.

The majority of wounded should be transported directly from the regimental aid post to the evacuation hospital. The problem of selecting the lesser wounded who can be treated at dressing stations between the firing line and evacuation hospital is not a difficult one.

All agree that the majority of wounded soldiers in this war should be operated upon in a well-equipped hospital under an anesthetic within eight hours, wherever possible. This hospital, as a rule, can be placed from six to eight miles in the rear.

In trench warfare, when the firing line is more or less stationary, this hospital six or eight miles to the rear becomes a stationary hospital. It may then be called a base or evacuation hospital. As a rule, it is the latter. However, when the firing line advances rapidly, these huge stationary hospitals cannot be moved with the same rapidity, and for this reason we must be prepared with a mobile hospital which can keep within six or eight miles in the rear, and which is equipped with all that is necessary for this primary operation.

In this war, the field hospital which is mobile will have little to do except in the care of minor wounds, if the firing line is stationary, but if the firing line advances rapidly, it will have much to do, and its equipment will have to be changed. Our present evacuation hospital was not designed for this primary operation, nor for the after-care of a large number of patients.

If the firing line is stationary this evacuation hospital will have to be enlarged to meet the demands, and if the firing line

advances, the evacuation hospital should be ready with its automobiles to become on twenty-four hours' notice a large, mobile operating unit.

All authorities agree that in the great majority of cases, when the wounded soldiers reach the evacuation hospital in eight hours or less, and the character of the wound allows, the wound should be excised, not only to remove the blood clot and foreign body, but to cut out with the knife, as you would in malignant disease, all devitalized tissue. Then the wound may be closed with a large probability of healing.

This requirement places huge responsibilities and demands upon the regimental medical corps and upon the ambulance transportation service—largely a military problem. The excision of such a wound places upon the surgical team in the evacuation hospital a new problem. The number of wounded may be great, the character of each wound different. Not only must there be surgical technique and skill, but surgical judgment. To facilitate the complete excision of such an irregular wound, some British surgeons stain the surface with brilliant green; others char with the cautery. All agree, however, that no surgeon should depend upon an antiseptic alone. The devitalized tissue must be excised.

When the wounded soldier fails to reach the evacuation hospital in time, and the wound has passed from the stage of contamination to the stage of infection, the wound cannot be closed. There also seems to be some difference of opinion as to whether the wound in the stage of infection should be excised. The majority favor thorough cleansing and removal of all foreign bodies and blood clots. In other cases the wounded soldier arrives within the time and the wound in the stage of contamination, but on account of its extent and character the devitalized tissue cannot all be excised. These wounds must be left open.

However, as to the treatment of the open wound there is a wide disagreement.

Two methods of treatment of the open wound are being intensely studied and advocated in this country. One, the Carrel-Dakin; the other, the dichloramine-T.

The majority of the opponents of the Carrel method do not question the scientific precision of its technique, nor the accuracy and brilliancy of its results. They claim, however, that this technique can only be followed successfully in a stationary hospital, with a large personnel, and that it is difficult to teach large numbers of surgeons the details of this method. They claim also that it is more expensive, not only in personnel, but in material. They call attention to the difficulty not only of placing the tubes

properly, but keeping them patent, and the difficulty of preparing and keeping the hypochlorite solution at effective strength.

In Philadelphia, at the Pennsylvania and university hospitals, the treatment of open wounds by the chloramine-T method has been splendidly worked out in dispensary and ward practice. The motion-picture lecture which is being delivered in this country by Captain Furness and Lieutenant Lee is a marvellously pictured story.

The men in this group are playing the game fairly, and admit that it was the Carrel-Dakin method that led to this.

The technique which they have developed in the excision of the wound and in the re-dressing of the wound ranks with Carrel's. The only difference is in the application of the antiseptic. The open wound before and after its excision, and at the daily redressings is sprayed and sponged with the dichloramine-T, the active principle of which is chlorine in eucalyptus oil. It differs from the Carrel method in the elimination of all drainage tubes and the 24-hourly application of the antiseptic instead of the two-hourly.

The test of these treatments will not be in the lesser wounds of the type usually seen in industrial practice. As a matter of fact, the results without dichloramine-T and without the Carrel-Dakin have been uniformly good in these lesser wounds of industrial practice, when surgical skill, technique and judgment were good. But the shell wounds of this war are of a different type, and Carrel has made a great contribution to their treatment. It is true that we have reports from France that dichloramine-T is accomplishing excellent results.

The lesson, however, which we must learn, and recently brought to us by Sir Moynihan and Major Crile, is that the surgeon must not depend solely on any yet known antiseptic, but must be convinced that their results will depend upon aseptic technique, rapid, skilful technique, surgical judgment, resourcefulness, constant attention to detail at the operation, eternal vigilance in the after-treatment. The majority of surgeons, however, feel that some antiseptic is an essential part of the wound treatment at the primary operation and in the subsequent dressings of the open wound.

In all surgical diseases the interval of time between the onset of the local condition and its operative treatment is the first essential factor in the cure. In this war many wounded soldiers will not reach the evacuation hospital within eight hours, with wounds still in the stage of contamination only, and many of those who do will have wounds that cannot be completely excised and closed.

Therefore, there is required a treatment for the open wound, and as far as my personal observation goes, I do not as yet know of a substitute for the Carrel-Dakin method.

It is my personal opinion that no surgeon in this country, no matter what his position or standing, has the right to condemn the Carrel-Dakin method unless he has, through painstaking investigation and experience, devised a substitute. Such men as these can fairly be compared with those in this country who in one way or another obstruct our preparation for war, and have no substitute to offer which will bring about a peace with victory.

The work of the group in Philadelphia with dichloramine-T should be welcomed and encouraged. The surgeon-general has recognized it, as he has Carrel's method, by sending Medical Reserve Corps officers to both places for special instruction. Other clinics in this country should follow the example of the Philadelphia group, and immediately start in wards and dispensaries an investigation, either comparative of these two methods or of a new one.

The surgical departments of the great industries should follow the example of Sherman of Pittsburg and Nolan of Birmingham. The industries with the large number of accidental wounds are in the best position to start at once a thorough and scientific research into the problems of wound treatment.

The fourth zone or stage begins at the evacuation hospital and extends to the home hospital. When the wounded soldier cannot be returned to the firing line fit to fight, he should be returned home fit to work. The great problem here is one of reconstruction and re-education. It is largely an orthopedic problem. But orthopedic principles should be known and followed by the regimental surgeon in his primary fixation in splints or on the stretcher. Throughout the treatment the alignment of the broken bones, the proper position of the injured extremity should be constantly maintained. From the beginning, muscle, tendon, joint and nerve function should be maintained and restored as rapidly as possible. Reconstruction can be made a much less difficult problem, if surgery is good from the onset. The larger problems are orthopedic and wound treatment. Undoubtedly this war will show a tremendous change for improvement when experienced and well-trained specialists have charge of the head, chest and abdominal wounds at the primary operation.

All agree that after the primary operation there must be a period of rest in bed before there is a second transportation.

In military medicine and surgery one group of medical men will have chiefly military and administrative functions; another

group of specialists and assistants will be chiefly occupied with purely clinical work; a third group, especially in the zone of advance, will have combined military and clinical duties. All must have a certain amount of general training in the military side; all need some general training in the clinical aspects; others are further and specially trained for the more difficult duties of military administration and supervision, and for the greater demands of clinical responsibility in surgery, sanitation and medicine. There must be overlapping, and there will be failure if there is not co-ordination, teamwork and *esprit de corps*. The medical profession of this country must realize its responsibilities. The winning of the war depends upon its combined and co-ordinated action as much as upon any other department of the army.

Now is the time to volunteer, to find out whether you are physically fit, whether you have the requirements, and whether your services are needed most at home or with the army. All who volunteer their services, whether accepted and commissioned for duty or not, should receive some *insignia of honor*.

Captain William E. Sinclair, M.B., 1914, has been awarded the Military Cross for his splendid work at Passchendaele. His home is at Meaford, Ontario. He enlisted with the C.A.M.C., and is in charge of No. 5 Field Ambulance.

Major Samuel H. McCoy, M.B., Toronto, 1892, has been appointed commandant of Yarrow Hospital, Broadstairs, England. He went overseas as a lieutenant in the R.A.M.C., and was transferred to the C.A.M.C. He has been mentioned for valuable services.

Dr. S. H. McKee, C.M.G., Montreal, who has been overseas almost from the beginning of the war, was recently advanced from lieutenant-colonelcy to full colonel. He has served in the Dardanelles and also on the western front. He is at present in command of the eye and ear hospital for soldiers at Folkestone, England.

A memorial fountain is to be erected to the memory of the late Dr. William D. Young, who died recently in Toronto. It will likely be situated in Kew Beach Park. Dr. Young enjoyed a very large practice in that section of the city, and possessed the confidence and esteem of his fellow practitioners as well as that of the public generally.

Reviews

The Treatment of War Wounds. By W. W. KEEN, M.D., LL.D., Emeritus Professor of Surgery, Jefferson Medical College, Philadelphia. 12mo of 169 pages, illustrated. Philadelphia and London: W. B. Saunders Co., 1917. Cloth, \$1.75 net. Canadian agents: J. F. Hartz Co., Toronto.

In this book will be found the latest technic on Acridlavine, Proflavine, and Brilliant Green, Mercurophen, Paraffin Treatment, etc. There will also be found two most important contributions: one, the new antiseptic, Dichloramin-T, and the simplified technic of Dakin for the treatment of infected wounds. Some cuts are used from Carrel and Dehelly. The book is of timely importance, and will be welcomed by surgeons.

The Medical Clinics of North America. Volume I, Number II (The Philadelphia number, July, 1917). Octavo of 269 pages, 28 illustrations. Philadelphia and London: W. B. Saunders Co., 1917. Published bi-monthly. Price per year: Paper, \$10; Cloth, \$14. Canadian agents: J. F. Hartz Co., Toronto.

The September issue of *The Medical Clinics of North America* is of extreme value on account of the many well-known names connected with the articles in it, viz.: Thomas McCrae, Alfred Stengel, Hobart Amory Hare, Henry K. Hancock, A. A. Stevens, Jay Frank Schamberg, etc. It is a large number of over 200 pages with a few illustrations.

The Surgical Clinics of Chicago. Volume I, number VI (December, 1917). Index number, octavo, 245 pages, 89 illustrations. Philadelphia and London: W. B. Saunders Co. Published bi-monthly. Price per year: Paper, \$10; cloth, \$14. Canadian agents: J. F. Hartz Co., Toronto.

There are eighty-four illustrations in the October issue of this valuable periodical to surgeons. Carl Beck, Arthur Dean Bevan, Halstead, Ochsner, Percy are amongst the eminent list of contributors, ensuring practical and scientific articles. Surgeons may keep well abreast of the times by subscribing for *The Surgical Clinics*.

International Clinics. Volume IV. Twenty-seventh Series, 1917. Philadelphia and London: J. B. Lippincott Co.; Montreal office, 201 Unity Building.

Of the many very excellent volumes of the *International Clinics* issued in past years, and which is now recognized as one of the standard publications, we do not remember a more interesting volume than this one. Ten chapters are devoted to "Clinics," which make good valuable practical reading and study. Were we to single out any particular, however, we would at the present time, on account of the great attention being given to foods, call attention to the article on "Some Food Facts for War-time Consideration." It would be well if the writer of this article would give attention to "all" the food facts available in an extensive article or book, particularly telling us the calories in different menus for breakfast, luncheon and dinner. As usual, many particularly good illustrations adorn the volume.

Diseases of the Skin. Their Pathology and Treatment. By MILTON B. HARTZELL, A.M., M.D., LL.D., Professor of Dermatology in the University of Pennsylvania. Fifty-one colored plates and 242 cuts in the text. Philadelphia and London: J. B. Lippincott Co.; Montreal office, 201 Unity Building.

Of the many excellent and rather bulky volumes issued from the medical presses in past years, we do not believe any better volume on Diseases of the Skin has so far appeared. The beautiful plates and cuts add much to the value of the book, whilst the text is very full and all carefully arranged. It is of further value on account of the fact that considerable space has been given to etiology and pathology, whilst those parts which are always of most interest—treatment—are dealt with quite sufficiently, there being no waste of valuable space. Illustrations in a book on diseases of the skin are always looked upon as of paramount necessity; and the better they are the more useful they make the book to the general practitioner. We can heartily recommend this book to medical men who may feel perfectly assured that they are getting the best value for their money. Men in general practice woefully neglect the study of diseases of the skin, but all are called upon to treat them. Perhaps they treat them as being altogether too trivial. The patient, however, does not, and is always extremely gratified to get rid of unsightly blemishes.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

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GEORGE ELLIOTT, MANAGING EDITOR.

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Vol. L.

TORONTO, FEBRUARY, 1918

No. 2

COMMENT FROM MONTH TO MONTH

The Canadian Medical Protective Association advertises to the medical profession on page iii of this issue. The reason for this is to be found in the following extract from the annual report of the President, Dr. Robert W. Powell, 1917: "After 1914, when we found numbers of our members had gone overseas, your Executive authorized the Secretary-Treasurer to keep all such names as were on our books in good standing until such time as they returned, and not to send them notices for annual dues. We felt it was the least we ought to do for our brethren at the front, but the result of this policy is shown in our list of membership for 1917, where there is a marked decrease, but still not enough to cause us material anxiety. . . . Our membership in 1915 was 831. In 1916 it was 747, and this year (1917) stands now at 678."

The Canadian Medical Protective Association stands well financially; it has done the best possible work for its members. The wonder is that such a good organization has not, even in the best days of its existence, appealed more to the members of the Canadian medical profession throughout the Dominion. We believe it has never lost a case for a member it has undertaken to defend. Unscrupulous individuals have, indeed, hesitated on more than one occasion to launch suits when they became aware that a

strong organization was behind the defendant. It, therefore, acts as a preventive of such suits. Can it be that members of the medical profession are taking advantage of this to their own protection without cost?

We urge our readers to read the announcement on page iii, to write to the Secretary-Treasurer, Dr. J. Fenton Argue, Ottawa, for a copy of the Sixteenth Annual Report, to spread the information around amongst their immediate neighbors, and to become a member of an organization which is second to none in Canada. Surely those of us who remain at home will not have it said of us that we permitted this organization to deteriorate owing to the fact that many of its members had gone overseas to do their bit that all democratic organizations might carry on and prosper.

Details of food supply and utilization are to-day of increasing interest. In fact, they are of immediate importance.

Formerly alcoholic liquors held the boards, and more ink was probably spilled over alcohol than any other subject. It was known to the medical profession that there were such cases as "food drunks," but the public, and particularly the temperance reformer, were more concerned with the harmfulness of alcoholic beverages. War and war conditions have, however, made a great change. Alcohol as a beverage is disappearing before arbitrary enactments, and the people contentedly submit. The eyes of the whole world are turned more and more on food.

It has been generally put down that for an average adult of 150 lbs. a dietary providing for 2,500 calories was required in the twenty-four hours, divided as follows: Protein, 100 grms.; carbohydrates, 400 grms.; fat, 50 grms. Such a diet, with the residue or roughage, will have an average weight of 1,100 grms. Of course, weight must be taken into account as well as the actual work at which the individual is employed, and the season of the year. The above figures would probably do for an office man, an invoice clerk, or book-keeper, but a man working in the lumber woods in the winter time would most likely require twice that amount. Extreme care will have to be exercised wherever concentrated diets are prescribed that there is always sufficient nourishment, as well as roughage; too little roughage would lead to constipation and its associated disturbances.

Whilst many good articles on food and diets are appearing in the medical press and in other sources, it does not seem to be

practical to tell us just how many calories we can purchase for five cents when various food products run at different prices, or how many calories to a pound. What the people require to know is how many calories a bowl or plate of porridge is going to produce, a slice of toast, an average potato, a cut of pie, a pancake, a cup of coffee, etc., etc.

An article in *International Clinics*, Volume IV, Twenty-seventh Series, on these subjects is well worth reading and study. We quote from it as follows: There are 100 calories in each of the following: One slice of home-made bread, three by four by one-half inches; oatmeal, cooked, two and one-half heaping tablespoonfuls; rice, cooked, one heaping tablespoonful; sugar, three and a half cubes—loose, two and a half heaping teaspoonfuls; butter, one ball; cheese, American, one cubic inch; milk, one and one quarter tumblerfuls; eggs, hen's, one large; bacon, smoked, uncooked, one-half slice; steak, round, one small helping, less than two ounces; oranges, one large; banana, one; prunes, two, very large; walnuts, three large, and so on.

It is only by a practical exposition of the caloric values of recognized kitchen quantities that housewives will come to prescribe for their families according to scientific regimen. If too complicated matter be introduced to them confusion will become worse confounded.

Blood Transfusion, Hemorrhage and the Anemias. By BERTRAM M. BERNHEIM, A.B., M.D., F.A.C.G., Instructor in Clinical Surgery, the Johns Hopkins University, etc., etc. Philadelphia and London: J. B. Lippincott Co.; Montreal office, 201 Unity Building.

This book is the outgrowth of a monograph written in 1913, and from one chapter it developed into a goodly-sized volume of thirteen chapters with an appendix. It is gotten up on nice paper, good type and clearly printed, with several illustrations. The wonder is that so much could be written upon a subject of this character. It is, however, a subject of vital interest, and practitioners may well feel they can here get the last word on blood transfusion.

News Items

Captain R. A. Thomas, Toronto, is home on short leave.

Major W. Harley Smith, Toronto, has returned to England.

Dr. D. N. MacLennan, Toronto, has returned from a holiday at Old Point Comfort, Virginia.

Colonel Robert D. Rudolf, Toronto, has been made a member of the new Order of the Empire.

Congratulations to Colonel John Amyot, Toronto, on receiving honors at the hands of his King.

Major Breffney O'Reilly, Toronto, has returned from Fort Worth, Texas, where he was medical officer to the Aviation Camp.

Dr. Alan McKibbin, who has been abroad two years, has returned to Canada, and is now on the staff of the Whitby Hospital.

Captain George Ewart Wilson, after serving nearly three years abroad with the University of Toronto Base Hospital, has returned to this city.

Dr. William Gunn, Clinton, Ontario, has returned from England, where he has been doing surgical work for two years on Canadian soldiers.

Colonel Charles Hodgetts, medical advisor to the Canadian Conservation Commission, and Red Cross Commissioner in England, is said to be ill in London, England.

Captain Edwin Campbell McArthur, Greenwood, B.C., a graduate of Toronto University, 1910, is now with the University Base Hospital, at Basingstoke, England.

Captain J. E. Freeman, Kingston, Ontario, has placed his farm of one hundred acres near that city at the convenience of the Military Hospitals Commission for returned soldiers.

Word has been received from Dr. Graham Chambers that his health was never better in his life, and that he is now chief in medicine, Moore Barracks Hospital, Folkestone, England.

Major Gilbert Royce, Toronto, who has been overseas with the University of Toronto Base Hospital, has been appointed commandant of the Canadian Hospital at Bromley, Kent, England.

Major Andrew Macphail, Montreal, editor of the *University Magazine* and the *Canadian Medical Association Journal*, has been knighted. Sir Andrew has returned to England, but we offer our heartiest congratulations.

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Publisher's Department

THE ROMAN SIGN.—The Romans, in signifying their approval, turned their thumbs up, or their disapproval by thumbs down. Physicians signify their approval of the medicinal value of a product also by signs. For instance, R. Hayden's Viburnum Compound ZI t.i.d. or as required, administered in hot water.

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URINARY ANTISEPSIS.—In the opinion of many practitioners sanmetto offers the nearest approach to the ideal inhibitor to bacterial growth. It is not only non-toxic and non-irritating, but rather soothing to the urinary tract, while not strongly antiseptic, yet sufficiently bacteriostatic for common routine cases. It is largely excreted by the kidneys. In prostatic cases it tends to relieve incontinence, clears up the urine, and is useful as soother before and following instrumentation. It is of positive value in urethritis and cystic conditions. It is never accompanied by the untoward conditions so often following the use of more powerful germicidal and bactericidal antiseptics. Sanmetto is safe.

DIET IN NEPHRITIS.—A. F. Chace and A. R. Rose, New York, have studied the dietary requirements in patients suffering from interstitial nephritis by methods of blood analysis, and deduced dietaries which they publish in tabulated form. They sum-



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marize their findings as follows: "A scheme of dietetic treatment for nephritis, based on the more recent advances in the field of nutrition, and tested in advanced cases of interstitial nephritis in this hospital, has had encouraging results thus far. The patients used in the test have been followed not only by the usual clinical observations at the bedside, but also by frequent chemical examination of the blood. The determination of creatinin and urea nitrogen affords an excellent and convenient means of gauging the kidney's capacity to eliminate nitrogenous waste products and noting the response of the nephritic to treatment. The plan provides a diet adequate in calories, protein, mineral elements and food accessories. To attain this, a variety in the menu has been insisted on. This insures a happier and more content attitude on the part of the patient, the inclusion of all the requisite vitamins and the complementing of biologically incomplete proteins. At least one hot dish is provided each day by giving a bowl of cream soup. Green vegetables are given to bring the iron intake in excess of 15 mg. per day. The sum total of the day's ash constituents should be decidedly alkaline in reaction and rich in calcium. Foods high in phosphorus are discriminated against, though not strictly barred, as are also foods of striking flavors. The day's energy requirement should add up at least 2,000 calories and the protein should not exceed 60 gm."—*J. A. M. A.*

TREATMENT OF RECENTLY INFLECTED WAR WOUNDS WITH FLAVINE.—A report on the treatment of some 120 recent war wounds occurring in 70 soldiers has been made to the Medical Research Committee by Drummond and McNee, with an introduction by Surgeon-General Bowlby. The following were the conclusions:

1. Flavine appears to have many advantages as a primary treatment of recent war wounds. Among the advantages are: (*a*) the absence of all toxicity, even in large wounds; (*b*) the prevention of suppuration and of spreading sepsis, as brought out in our series of test cases; (*c*) the primary dressing need not be changed for two or three days, and is then easily and painlessly removed; this may be of great advantage during severe fighting, where rapid evacuation of wounded from front to base is required without unnecessary dressing of the wounds; (*d*) the wounds are not inflamed or painful, and the surrounding skin is never irritated.

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children, smaller quantities in proportion to age. For the ailing or anaemic child, ten to fifteen drops added to the ordinary food has been found highly beneficial. In brain fog, exhaustion from over study, worry, late hours, etc., it acts as a splendid restorative or "pick-me-up."

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2. Emphasis must be laid on the fact that excision of damaged tissue and mechanical cleaning of the wounds are necessary preliminaries to the use of the flavine.

3. Flavine cannot be classed as a success in the treatment of the later stages of war wounds. The wounds tend to assume a stagnant condition, during which the process of repair is almost in abeyance. After a few days, when the danger of gas gangrene and of spreading sepsis have to a great extent passed off, flavine should be stopped and another treatment adopted.

4. In the majority of cases, war wounds are not rendered bacteriologically sterile even by the prolonged use of flavine.

5. Test-tube experiments carried out with organisms isolated from actual wounds bear out the strong antiseptic properties of flavine, and their enhancement in the presence of serum. Coliform bacilli, which are a common infection in the later stages of wounds, are much more resistant to the action of the antiseptic in test-tube experiments than any of the other types of organism examined in this way.—*The Lancet*.

Medical Council of Canada

June Examinations, 1918

The examinations of the Medical Council of Canada will be held in Toronto and Winnipeg coincidentally on June 18th, 1918.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the June examination will close promptly at the Registrar's office in Ottawa on May 21st, 1918.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. L.

TORONTO, MARCH, 1918

No. 3

Original Articles

SHELL-SHOCK: ITS CAUSE AND PROPER TREATMENT BY DIET*

BY JOHN HADDON, M.D.

Dr. Mott, in his "Chadwick Lecture" (July 1917) says: "The term shell-shock is applied to a group of varying signs and symptoms, indicative of loss of functions and disorder of functions of the central nervous system, arising from sudden or prolonged exposure to forces generated by high explosives." He further says that he thinks that "even death may occur as the result of aerial concussion, generated by high explosives without visible injury." He evidently believes that shell-shock is due to a physical cause, for he remarks that "it is difficult to determine in many cases whether the force was delivered by the hurling of a sandbag against the head, or spine, or simply by aerial concussion in a confined space." But he recognises another class of cases, which are more difficult to deal with than cases in neuropotentially sound individuals, in which an *emotional shock* or *intense fear* may induce symptoms of hysteria, or neurasthenia. He says; "some patients, owing to an injury by fall caused by an exploding shell, have developed a functional paralysis on the side of the injury, either arm or leg, or one of these limbs," and he looks upon these as "*functional paralytic conditions of a hysterical nature.*" It would thus appear that he thinks that the cause of shell-shock in neuropotentially sound individuals is physical, while in others it is altogether mental; and in addition to the symptoms of neurasthenia, in some cases of shell-shock, a limb or limbs may be functionally or hysterically paralysed. In treatment, Dr Mott believes in good feeding, but he tells us that "diversion of the mind by useful occupation, both in the workshop and in the garden, have been most successful in restoring health and strength to the disabled men."

* *Medical Press and Circular.*

In a criticism of a book by Professor Elliot Smith and T. H. Pear on "Shell-shock and its Lessons," the writers say: "Believing, as they do, that the problems of shell-shock are the every-day problems of 'nervous breakdown,' they have made their book a plea for the establishment of psychiatry clinics, a plea for the education of the man of the profession in the means of dealing with such derangements in their earliest stages, and a plea for the removal of the stigma which attaches, in this country, to mental disorder, however transitory." I have a copy of that book, and the authors, following Professor Cannon in his book on "Bodily Changes Produced by Fear, Pain, Hunger and Rage," enunciate a theory quite new, so far as I know, to account for shell-shock symptoms, viz., *suppression* of emotion and non-emotion itself. Altogether, so far as our medical philosophers or psychologists have got in their study of shell-shock, they have not, in my opinion, managed, as it were, to put their finger upon the spot.

It is generally admitted that shell-shock is a nervous breakdown; in other words, the symptoms seen in cases of shell-shock are the same as those seen in neurasthenia among civilians, who never heard a shell explode, or even saw one. Before giving my views I should like to point out that there are two ways of arriving at the truth as regards any symptom of disease. One way is to observe facts, and from them form a theory. The other is to form a theory and make experiments to prove it. The one way may be called the experimental, the other the clinical. As an example of the two ways, I would point to the history of aseptic surgery. Semmelweis, in 1846, by pure clinical observation, learned and taught that surgical fever was due to the entrance of putrid matter into the blood through a wound. Lister, captivated by "The Germ Theory" of Pasteur, thought it might be a germ that caused surgical fever and set about proving his theory. I remember what fun we made of the spray freezing the poor germs; but, in spite of ridicule and opposition, Lister persevered, and his results were so much better than those of other surgeons that he was regarded as the greatest benefactor owing to his discovery of the antiseptic system of surgery. The clinical method of studying disease I believe to be the best in all cases. It is inductive reasoning and frequently wrong. It is by the clinical way that I am studying disease; nevertheless, I do not claim to be infallible. But I look upon shell-shock and neurasthenia as one disease—a nervous breakdown. One occurs gradually, the other suddenly. One may be cured by regulating the diet; and so, I believe, may the other; but no one, so far as I know, has treated any case of shell-shock as

I have treated and cured some of the worst cases of neurasthenia. When I look back over my own medical history, I can trace the failure of my nervous system, giving rise to bodily ailments before the mental functions were affected. Fistula, lumbago, and gout were followed by what we call neurasthenia; but the physical were symptoms due to nervous breakdown, as well as the mental, for every cell in the body depends upon the *vis nervosa*, for the proper performance of its function. I had appendicitis in 1881, and when I recovered I found I had lost my memory. Before that, I could have gone round my patients without once looking at my list. How could the appendix have to do with memory? My next most noticeable mental symptom was want of decision. I changed my mind frequently. One very observant individual, who had a boarding house in which I lived for a time under the care of a vegetarian physician, said I would never hang myself, for I would change my mind before doing so. The next and worst symptom of all was mental depression, and the first and worst attack followed eating improperly cooked lentils. I was so depressed that I sailed for six weeks, hoping to get well, but was no better, and continued to suffer until I became my own physician, and, by abstinence from food, reduced my weight, instead of feeding, as I was advised by my medical brethren to do. Now I have learned how to cause, as well as to cure, mental depression, the worst symptom in neurasthenia. A poor man who had seen a letter of mine on diet, and was so ill that he dare not go out, or even travel in the train without his wife, and had been off work for four years, came under my care in my own house. He was so bad that I thought there was no hope of his recovery (following Weir-Mitchell's teaching) unless he was isolated; but he wished his wife to remain with him and would not send her home, so I refused to keep him, and he was with me for only two days. I did what I could for him in those two days, and from what he learned he was able to guide himself, and was soon back to work. That case proved that with proper food, isolation is not necessary to cure the worst cases of neurasthenia, and until I have had a case of shell-shock to treat and failed to cure it, I will continue to believe that it might be cured in the same way.

Neurasthenia is not like insanity, and I don't believe a neurasthenic will ever become a lunatic. The one is a paralysis, the other is the very opposite, but both, I believe, are due to the same cause, and if I had charge of an asylum, and were allowed to feed the patients as I thought right, instead of being compelled to give one of the official dietaries, I feel sure that I could cure more than the

33 per cent. who recover in spite of being too well fed. All lunatics are shut up in asylums, and I have no doubt that many of them are mere neurasthenics, so that it is impossible for one to get a lunatic to treat; but a neighbor of mine, who heard voices, and who, in working in his garden, might be heard talking to himself and laughing, took my advice as to diet one summer. He became lighter in weight, much more active, much happier, and admitted that he never heard a single voice. But on returning to his usual diet the voices again troubled him. So far as I know, Dr. Mercier is the only man who has, by a mere change in diet, cured symptoms of insanity. He found out what the patients were fondest of eating, and told them to eat less of it, or to avoid it altogether, and one, a woman, said the change in her case was miraculous. If our asylum superintendents do not begin to study dietetics, after hearing what Dr. Mercier has done, and continue to feed their patients as of old, they will become blameworthy. For many years I attended the Psychological Section at the annual meeting of the British Medical Association, hoping to stir up our experts in lunacy to a sense of their duty. I told them they had done much good by making their patients work, and that they might perhaps empty the asylums if they fed them properly. On one occasion I remember, Dr. Ford Roberts read a paper telling us that he had discovered the bacillus of general paralysis. He exhibited slides showing the total destruction of the mucous membrane of the stomach and intestines, and I ventured to point out that he had put the cart before the horse, because until there was a lesion somewhere no germ could enter the system, and unless it found suitable food it could not live there. He and another asylum superintendent, after the meeting told me they were much impressed by my remarks; nevertheless, dietetics is not taught as it ought to be, or made a compulsory subject in the medical curriculum.

But I have had some personal experience of shock, as well as of neurasthenia, and it was fear that caused it. This experience has proved to me, I think, that shell shock is also due to fear, a purely mental symptom, and not to any physical cause.

What I have written goes to show that the mind may be affected, through the body, very gradually, and that the body may be affected through the mind suddenly; but some time ago I had a case which seemed to prove that the body may be affected through the mind, slowly, also. It was that of a young man who had read an article of mine in "Brotherhood," and wrote to me. I had some correspondence with him. He was a sort of Theosophist, and practising *Yogi*, hoping by so doing to come into communion with God. He

believed in the transmigration of souls, was a conscientious objector when conscription was put in force, and thought all his suffering was a punishment for conduct in a former life. He was forsaken by his friends and out of work, and believing that he had injured his body, for he was not well, by practising *Yogi*, I received him into my house. I found in addition to bodily ailments that he was suffering from neurasthenia, mental depression being a prominent symptom. I took him a long walk to see what he could do. When he returned he was very tired, and on eating some fruit was sick. I kept him in bed a week, gave him only one meal a day, consisting of fruit mostly, and then took him a much more trying walk, which he thoroughly enjoyed, and came back as fit as when he set out. But not only had he improved bodily, but his mental state had improved also. He looked brighter, refused to submit to the restraint upon which I insisted (an excellent sign in a neurasthenic), and went home to enlist. His bodily troubles were not due to over-eating, for he had been a vegetarian many years, eating only twice daily, and I have little doubt that it was practising *Yogi*, which is a sort of self-hypnotism that had ruined his nervous system, and I should not wonder if a good many of the conscientious objectors are suffering from neurasthenia, due, not to meditation, but to their feeding habits.

In conclusion, if I am right, if the mind can be affected by overeating, or by wrong food, as well as the body, is it not full time that our General Medical Council should insist upon dietetics being taught in every medical school, and made a compulsory subject in every examination for a licence to practise?

And if the body is a mere machine, and we have no evidence that it is anything else, how necessary is it that everyone should be taught all that is known about it, and how to manage it! It is God's machine, and it will not disgrace Him, if rightly managed; but at present it is being injured, even before it is born, and, in too many cases, it is dead long before it is born; but when the new science, engineries, is studied, and taught, as it will be, and put into practice, man will be as ashamed of being ill as he is of being convicted of the most heinous sin. The author of Ecclesiastics, who, I think, must have been a doctor, says, "He that sinneth before his Maker, let him fall into the hands of the physician," and he sins before his Maker who eats or drinks as he should not do; and Pythagoras, wisest of the Greeks, said a man ought to be ashamed of being ill, except from accident, or climatic influences; but it is possible that when we live as God intended us to do, no climate will harm us.

THE LIMITATIONS OF LOCAL ANESTHESIA IN SURGICAL OPERATIONS *

By LEIGH F. WATSON, M.D., CHICAGO.

Local anesthesia has its limitations as has any other method of anesthesia. It cannot be successfully employed for every operation, nor can it be used on all patients. In some instances it is not suited to the temperament of the patient; in others, the operation is one that should not be attempted by local anesthesia alone. The variety of major operations that is possible to be completed by local anesthesia, depend upon a proper selection of cases and the experience of the operator; his patience, his gentleness in handling tissues, and special training in the method.

Essential for Success.—The first requisite for the successful use of the local method is an accurate knowledge of the nerve supply, and the ability of the operator to block off completely every sensation of pain. When the nerve supply cannot be entirely controlled, general anesthesia should be employed.

The sensation of pain is confined to the skin, nerve trunks, parietal peritoneum, and synovial membrane of joints. Lennander has demonstrated that all internal organs obtaining their nerve supply from the sympathetic and vagus, below the branching of the recurrent nerve, have no sensation. For this reason the abdominal and pelvic viscera are insensitive to heat, cold, pain and pressure, both in health and disease. There is no sensation of pain in bone substance, bone marrow, cartilage, tendon, articular surface of bone covered with cartilage, brain, lung, liver, heart, kidney, kidney pelvis, ureter, bladder serosa, and intestine. A slight twinge of pain is felt when blood vessels are cut. Traction on the ligaments of the thoracic, abdominal, or pelvic viscera will cause pain; traction on the mesentery, besides producing pain, will cause epigastric discomfort and nausea. I have frequently noted the pain of ligating the meso-appendix when it has not been previously blocked with local anesthesia.

Solution, Syringe, Needles, Etc.—Novocaine, one-fourth per cent. solution, or cocaine one-tenth per cent. solution, is strong enough for any operation. Adrenaline (1:10,000) five minims to the ounce of anesthetic solution is usually employed to give prolonged anesthesia. The drug must be sterile, and dissolved in

* Interstate Medicine.

sterile normal salt solution, being freshly prepared for each operation, and of a definite strength, that the operator may know at any time the exact amount of anesthetic that has been used. Cocaine and novocaine can be sterilized by heating to 212 degrees F.; a temperature above this, as well as repeated sterilization, is injurious.

Different operators prefer various syringes. I have found an all-metal syringe holding 10 cc. very serviceable. The syringe should take a slip needle to facilitate rapid refilling. The needles must be kept sharp and clean; the smallest size should always be used for the initial infiltration of the skin.

Advantages.—As there is no danger of post-operative pulmonary, cardiac, or nephritic complications following local methods, many emergency operations can be satisfactorily and safely performed in the patient's home. Either at home, or in the hospital, the patient should be made comfortable on the operating table, which should be well padded with extra blankets or quilts; a hard table will quickly cause him to become tired and restless. As there is no necessity for speed with the patient conscious and comfortable, fewer assistants are required than with general anesthesia.

Many patients will consent to operation under the local method who would not consider it if it involved a general anesthetic; this applies especially to those who have had a stormy and protracted convalescence after taking ether.

Allen sums up the advantages of the local method as follows: Absence of fear of the anesthetic; absence of post-operative disturbances; no danger of post-operative dilatation of the stomach or of tympanites; no post-operative backache; no vomiting and straining to weaken abdominal incisions; no necessity to starve the patient beforehand—the regular post-operative nourishment of debilitated patients is not interfered with.

Contraindications.—The local method is positively contraindicated in the patient who does not want it—who prefers for any reason to be asleep during operation. It is a mistake to urge local anesthesia on the sceptical, and without exception, I administer a general anesthetic to this type of patient.

When there are intra-abdominal adhesions or when the condition is one in which the nerve supply cannot be completely blocked, as is the case in deep pelvic or abdominal operations, a general anesthetic is indicated.

Allen says, "Local anesthesia is actually contraindicated only in children, epileptics, and highly nervous or neurotic subjects. The loss of consciousness is not necessary for the successful per-

formance of an operation, and with the patient's restlessness and possible anxiety allayed by a small preliminary dose of morphine, or morphine and hyoscine, the fact that the patient is conscious becomes a negligible factor for the successful completion of the operation."

Scope of Local Anesthesia.—In selecting the anesthetic for a major operation, one must first of all consider the life of the patient. Local anesthesia adds greatly to the safety and comfort of the young and robust, and when the patient is handicapped by old age, shock, hemorrhage, pulmonic, nephritic, or cardiac lesions, the local method is especially indicated if he is to be given the greatest chance for recovery.

Operations on the Extremities.—In dislocations, fractures, and amputations of the fingers and toes a simple infiltration around the base of the digit is all that is required for successful analgesia. For operations above the wrist and ankle the regional nerve block method of Matas is most satisfactory and quicker than local infiltration.

Operations on the Skull.—Trephining, exploratory craniectomy, mastoidectomy, and removal of depressed fractures are easily performed under local anesthesia, greatly to the safety of the patient. The bone, dura, and brain substance, are insensitive. Infiltration anesthesia of the skin, fascia, muscles and periosteum, is all that is needed.

Major Abdominal Operations.—All forms of inguinal, femoral, ventral, and umbilical hernia can be operated on under local anesthesia. A general anesthetic is never indicated except in children and the neurotic. For strangulated hernia in patients with lowered vitality, the local method is a necessity, to eliminate the additional shock of general narcosis.

Interval cases of appendicitis, selected cases of acute appendicitis can often be completed under local anesthesia if the mesenteric nerve block technic is employed.

In selected cases I have completed the following operations under local anesthesia: Herniotomy, appendicectomy, nephropexy, cholecystotomy, suprapubic cystotomy and prostatectomy, gastroenterostomy, colostomy, resection of the tubes and ovaries and shortening the round ligaments.

Perineorrhaphy, trachelorrhaphy and cystocele operations can usually be performed under local methods.

Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH

Illuminating Gas Poisoning is so prevalent, either through defective gas burners, gas heaters, or gas stoves, that inspection seems to be called for on the part of the Department of Health as a preventive measure. There is inspection of water taps, plumbing systems, electrical installations, etc., which are not so dangerous to health and life. Why has gas been so long overlooked?

Sometimes, too, medical men are called in to treat people overcome from gas from defective furnaces. Why should not furnaces also come under a similar measure of inspection? It is the day for the prevention, not only of communicable diseases, but as well of industrial poisonings, and industrial accidents. The dangers are not alone from acute, but from chronic gas poisoning as well.

Carbon monoxide, the poisonous principle in illuminating gas and gas from furnaces, gas ranges, etc., is most frequently the result of incomplete combustion of carbonaceous materials; and it is said that even the smoking of a cigar or cigarette is accompanied by the formation of CO gas. Fortunately, although it has no odor of its own, it is usually found in combination with other gases, such as CO₂, hydrogen, methane and illuminants, some of which impart an odor making the CO detectable.

Apart from the acute poisonous aspects, poisoning from carbon monoxide manifests itself in the chronic form by headaches, vertigo, nausea, vomiting, coated tongue, amnesia, anemia, flushes, formication, heart palpitation, nervousness and malaise.

Leaks from gas ranges in the kitchen should be specially looked for, as chronic poisoning may often occur to cooks, maids, and housewives who do their own cooking.

By the Death of Lieutenant-Colonel John McCrae, Montreal, Canada has lost one of the many prominent medical men who volunteered to serve their King and Country, either in the field, the field hospital, the clearing hospital, or the base hospital. The late Colonel McCrae was a native of Guelph, Ontario, a graduate of the University of Toronto, and a leading teacher of medicine and practitioner in Montreal, with a continental reputation. No monument will commemorate his memory better than:

IN FLANDERS FIELDS.

In Flanders fields the poppies blow
Between the crosses row on row,
That mark our place, and in the sky
The larks still, bravely singing, fly,
Scarce heard amidst the guns below.
We are the dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders fields.

Take up our quarrel with the foe,
To you from falling hands we throw
The torch—be yours to hold it high.
If ye break faith with us who die,
We shall not sleep though poppies grow
In Flanders fields.

As Wolfe quoted Grey's Elegy on the Plains of Abraham and said: "I had rather penned those lines than take Quebec," so might one say, I had rather penned those lines than receive knighthood at the hands of my King.

The Report of Mr. Justice Hodgins on medical education and practice in Ontario, has been placed before the Ontario Legislature, but as copies have not yet been printed for distribution, we are unable to give exact abstracts of some of the Commissioner's chief recommendations. We reproduce, however, below, a summary of the report as it appeared in the *Toronto Globe*. We shall make no comment on the report until it is before us in full, and publish the summary merely that our readers in other provinces, as well as throughout Ontario, may have some knowledge of it, as to what the Commissioner recommends for the good of medical education and practice in this Province.

MR. JUSTICE HODGINS REPORTS ON MEDICAL EDUCATION AND PRACTICE IN ONTARIO

Important and far-reaching changes affecting the medical profession of the Province are recommended in the report of Mr. Justice Hodgins, which was presented to the Legislature, by Hon. W. D. McPherson, Provincial Secretary. If the changes advocated by the Medical Commissioner are carried into effect the elimination of quacks and fakirs may follow. The report is a sequel to a lengthy inquiry conducted by Mr. Justice Hodgins regarding the practise of medicine in all its branches.

Several important recommendations are made, as follows:

The immediate establishment of an institute of physical therapy on the premises of the Toronto General Hospital.

Selection of a staff from those having special training for the department for which they are intended, particularly those trained in war work.

Installation in the Department of Physics at the University of medical equipment in physical therapy to provide for the proper instruction of students.

A compulsory course for medical students in physical therapy with a view to preparing qualified graduates.

The practise of medicine to be properly defined.

Osteopaths, chiropractors and other drugless healers practising in Ontario up to June 30, 1913, to be permitted to continue for six months from January 1, 1918, without being subject to any disability or prosecution.

No one to be permitted after July 1 to practise medicine, as defined in the Province, without a license from the College of Physicians and Surgeons, excepting those practising osteopathy on June 30, 1913, holding a certificate from one of the five colleges recognized by the American Osteopathic Association, and having had five years' practice in osteopathy, obtained a certificate from the association that they are qualified to pass an examination for license in the State with the highest standard. These may continue in practice under a special license from the Minister of Education.

A clause making it clear that there is nothing in the legislation to prevent the practise of the religious tenets of any Church, providing that any person exercising it for gain for the benefit of the sick or diseased shall be required to possess a permit from the Provincial Board of Health, certifying that the holder is required to be reported under the Public Health Act.

Optometry to be taught in courses to be arranged by the Faculty of Medicine of the University, the Optometrical Association and the Toronto Technical School for the education of students. A student on passing this course will be entitled to style himself optometrist.

Provincial registration of nurses to be established with local branches where nurses may be registered according to their qualifications.

CERTIFIED NURSES.

Only those graduating from schools conducted by public hospitals or by a school designated by the Provincial Secretary, if outside the Province, are to be known as a graduate, trained or certified nurse.

Home nursing associations are to be incorporated, and provision is to be made for the training of nurses to serve under practising physicians or a graduate nurse in caring for the sick in their homes and their families.

The establishment of further training centres and the training of nurses are to be dealt with immediately.

A medical director is to be appointed for the Province.

The constitution of the College of Physicians and Surgeons is to be amended.

Every case of medical and nursing work, including the status, operations and finances of the College of Physicians and Surgeons, is dealt with separately. The Commissioner deals with the cults that are bitterly opposed by regular physicians, osteopaths, chiro-

practitioners and other drugless healers, and he by no means accepts the view of the "stand-patters" in the college.

Taking up the history of osteopathy in the United States, he finds that osteopathy is steadily finding its proper place, as having certain value as a special branch of medicine. Regular medical practitioners are sharply rapped, the Commissioner pointing out that they have refused to see the need for physical treatment, and his report definitely advocates action by the Government, with the object of training students in physical therapy.

OSTEOPATHS' REQUESTS.

The Commissioner declines to approve of the osteopaths' request that they be given special recognition. This, he points out, would have the effect of emphasizing a division that is disappearing in the United States. If carried out the recommendation means that osteopaths will be barred from practising healing in Ontario unless they first conform to the standards enunciated by the medical college. This restriction would apply only to those who began to practise after June 30, 1913, as Sir James Whitney gave adequate warning at that time that the whole question of medical education was to be investigated. Under special arrangement those practising before that date will be permitted to continue.

Referring to chiropractors, the Commissioner says that he cannot accept as part of the recognized medical profession a system which denies the need of diagnosis, refers ninety-five per cent. of diseases to one and the same cause, and turns its back upon all modern medical and scientific methods as unworthy to be even discussed. Regarding the attitude toward new cults by the medical profession and their refusal to admit any virtue in them, he likens them to wilful doubters, who asked "Can any good thing come out of Nazareth?" "They are not willing to look things in the face, for fear they may see something," says the Commissioner. "At all events their attitude is, and has been, that of knowing nothing and wanting to know nothing about these cults. I am glad to say that they do not, in my judgment, properly represent the more advanced and open-minded of their profession." While the average practitioner has kept away from what was "unauthorized," and has shut his eyes to the value of manipulative treatments, it is encouraging to know that some of the younger men are moving in the direction of giving physical therapy its due place.

CHRISTIAN SCIENCE.

The Commissioner says that there can be no interference with the right of members of the Christian Science faith to practise the

tenets of their religion. However, since Christian Science treatments had the effect of eliminating the regular practitioner, the interests of public health demanded that such persons should be held responsible for possible mistakes in the nature of disease. "They should therefore conform to the present or future health regulations, and when they act for gain they should be required to possess sufficient medical knowledge to recognize disease pronounced by the health authorities to be communicable." Heavy penalties are recommended to be imposed upon persons practising such religious tenets upon any person suffering from religious disease.

Persons so practising should be carefully restricted to the bonafide exercise of the tenets of their religion. They should possess no other right or immunity from that enjoyed by any minister who is called in for the spiritual benefit of a member of his communion, and whose ministrations often react beneficially on the physical suffering.

"THE HEALER."

For the "healer" who attends a person suffering from communicable disease without first notifying the health authorities heavy penalties are recommended. The Commissioner recommends that the optometrists pass a specified examination that would require ability to detect disease through the eyes, and that they have a knowledge of the physiology and pathology of the eye, as well as a thorough knowledge of practical optics and refraction. Then, too, further educational facilities are necessary if optometrists are to be given statutory recognition.

Relations between the medical college and universities are dealt with at considerable length. The conclusion is reached by the Commissioner that it would not be advisable to do away with the present independent examination. He would leave the universities to decide whether they will divide their degree giving power by having a joint examination.

MEDICAL DIRECTOR.

The proposal to appoint a Provincial Medical Director is endorsed. At present the medical profession has a virtual, if not inevitable, monopoly and some Provincial authority should be provided to whom the public might appeal against evils which such a monopoly might give rise to. "Besides, the profession requires to be protected against itself," says the Commissioner; "against sloth and inefficiency in the conduct of its preparations as well as

its practice, and against inability or unwillingness to receive or try out new ideas or new methods."

Dealing with dentists, the Commissioner recommends that the surplus of the Royal College of Dental Surgeons be turned over to the universities to provide increased facilities for training students.

The demand for recognition by the nurses is endorsed, and the need for further training facilities is urged. The suggestion is made that there should be a new class of nurses, those with lower qualifications than graduate nurses. Under the supervision of a doctor or a registered nurse they could go into a home and care for the sick.

Homeopathy is dealt with briefly, and the Commissioner says that it is apparent its followers are fewer now than previously. He believes it is wrong that the whole Medical Council is responsible for all other matters, and that three out of the five homeopaths on the Council name the colleges where training may be had.

SOME THERAPEUTIC NOTES

Antiseptic Ointment (for burns, eczema, ulcerations).—Europhen, dr. ii. ss., to be dissolved in olive oil, dr. v., heated in a water bath to 60 deg. C.; vaseline or lanoline, qs. oz. iii. N.B.—Europhen = iso-butyl-ortho-cresyl-iodide (de Molène).

Gonorrhea in Women.—Boukowsky has used with great success methylene blue in applications. Each day the urethra, vagina, and neck of the womb are to be painted with a saturated solution (4.45 per cent.) of methylene blue, in water. Very rapidly the pain and burning sensation decrease, the inflammatory phenomena disappear, and the purulent discharge becomes thin and watery.

Hemorrhage from the Digestive Tract (Prof. Robin).—Administer alternately one tablespoonful every half hour of the two following preparations: 1 deg. chloride of calcium, dr. i.; liquid extract of opium, m. xx.; syrup, fl. oz. i.; water, ad fl. oz. v.; 2 deg., liquid extract of ergot, m. xxx.; gallic acid, gr. viii.; syrup of pine oil, oz. ss.; water, ad. fl. oz. v.

Impotency in the Male.—Phosphide of zinc, gr. 1-6; extract of nux vomica, gr. 1-3; excipient, qs. Fiat pil. Nutte 40. One pill three times a day.

Enema of Cod Liver Oil.—Cod liver oil, oz., 24; yolks of eggs, three; lime water, fl. oz. 10; to be in an emulsion. Two or three, and even six, ounces to be injected gently into the rectum, at night, after clearing out the latter by means of a simple enema.

How to Avoid Iodism (Lieven).—Iodide of potassium, oz. i.; citrate of iron and ammonia, dr. i.; sulphate of strychnine, gr. 1-3; oleo-saccharide of peppermint, fl. dr. iv.; orange flower water, fl. oz. iv. The association of iron and strychnine with the iodide of potassium prevents any manifestations of iodism.

Nutrient Enemata in Ulcer of the Stomach (Prof. Robin).—Eggs (beaten up), two; liquid peptone, fl. oz. i.; solution of glucose (20 per cent.), fl. oz. iii.; pepsin, gr. xv.; chloride of sodium, gr. vii.; tincture of opium, m. ii.; concentrated beef tea, qs., fl. oz. viii. The above is injected into the rectum after clearing out the latter with a simple enema of boiled water.

Acute Coryza.—Salicylate of soda, oz. i.; Dover powder, dr. i.; peppermint oil, m. i. Mix and divide into 20 powders. One powder to be taken with a little water every 3 or 4 hours. Increase the intervals as improvement occurs.

Diarrhea due to Tuberculous Ulcerations (Prof. Renou).—Methylene blue, gr. ii.; lactose, gr. iii.; fiat cachet. Three to four cachets per day. N.B.—The patient is to be warned that his urine will become blue.

Acute or Chronic Rheumatism (Prof. Ponchet).—Citrophen, dr. ii. ss.; syrup, fl. oz. i.; chloroform water, fl. oz. iv. Three to six tablespoonfuls in the 24 hours.

—*Medical Press and Circular.*

No more negro medical students are to be admitted to Queen's University, Kingston. This is due to the objection of patients to the presence of negroes at hospital clinics. There are now fourteen negro medical students in that institution and they will be allowed to finish their fourth year, but not the fifth, owing to the fact that most of the clinical work has to be done in the fifth year.

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News Items

Captain George C. Anglin, M.B., Toronto, lately received the Military Cross.

General Carleton Jones, Director-General of the Canadian Medical Service, has returned to Canada.

Drs. J. T. Wall and C. M. McGill, University of McGill, have been elected members of the Royal College of Surgeons.

Captain C. J. Willoughby, Toronto, 1916, who has been with the R.A.M.C. in Mesopotamia, is also returning to Toronto.

Captain Eric K. Clarke, son of Dr. C. K. Clarke, Dean of the Medical Faculty of Toronto University, has gone to England, and will be attached to the University of Toronto Base Hospital at Basingstoke.

Captain D. A. Warren, Hamilton, Ont., has resigned from the R.A.M.C., and has been given a commission in the C.A.M.C. He is proceeding to England and will be attached to Bushy Park Hospital.

Colonel Alexander Primrose, Toronto, after serving twice abroad, first with the University of Toronto Base Hospital, and second as consulting surgeon to the Canadian forces in England, is returning to Toronto.

Captain William Bernard McDermott, Toronto, 1912, who was in Russia with the Anglo-Russian Hospital which has disbanded, is back in England. He comes from Comber, Ontario, and practised in Lang, Sask., when he enlisted.

Lieutenant-Colonel R. S. Pentecost, commanding the 14th Field Ambulance as an original member of the First Contingent, has been decorated with the 1914 star. His home is in Toronto and he has been on service since the war began.

Captain D. E. Staunton Wishart, M.B., son of Dr. D. J. Gibb-Wishart, Toronto, was recently mentioned in despatches by General Allenby for gallant conduct and distinguished service. Captain Wishart is still with the British forces in Palestine.

Colonel Herbert S. Birkett, C.M.G., dean of the medical faculty of McGill University, has returned to Montreal on account of ill-health. His command has fallen on Colonel J. M. Elder of Montreal, who was also with the McGill Base Hospital.



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Montreal

Winnipeg

Dr. W. H. Hamilton, Fort William, Ont., died in Florida, recently. He was graduated from Trinity Medical College in 1894.

Captain James Dickson, M.B., Toronto, 1916, who was with the R.A.M.C. in India and Mesopotamia, came back to Toronto in January.

The National Cash Register Co. has sold its building to the Military Hospitals Commission for returned soldiers. It will be established as a centre for orthopedic cases, and will have about 1,500 beds. It is situated near Dupont and Christie Streets, Toronto.

Dr. William C. White, Toronto, 1899, who has been connected with the Health Service of the Volunteer Relief Work in France, has been made chief of the Bureau of Tuberculosis of the American Red Cross in France. He had been doing special work in Pittsburg.

At the Antitoxin Laboratory of the University of Toronto doctors are working toward securing a serum which will counteract gas gangrene. Captain A. H. Caulfeild who went overseas with the University Base Hospital, has been brought back from London, England, and will have charge of the work.

Lieutenant-Colonel H. H. Alger, Stirling, Ontario, who went overseas with the 80th Battalion, after many months service in the trenches, has been sent to a base hospital for instruction. He will proceed from there to England to standardize the Medical Board work, going through England and then continuing his work in Canada.

Many graduates of old Trinity Medical College, as well as many members of the medical profession throughout Canada, will be glad to learn that Dr. Charles Sheard was elected a member of the House of Commons to represent South Toronto. Being one of the progressive members of the medical profession, a forcible and eloquent speaker, Dr. Sheard will soon take a leading place in that assembly.

Over 2,000 students, graduates and teachers from McGill University, Montreal, have joined the military forces since the war began. Three hundred of them have gained military honors, and 236 are among those who have made the supreme sacrifice. The McGill corps was originally organized by Sir Auckland Geddes, professor of anatomy, who is now Director-General of Recruiting in England.

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children, smaller quantities in proportion to age. For the ailing or anaemic child, ten to fifteen drops added to the ordinary food has been found highly beneficial. In brain fog, exhaustion from over study, worry, late hours, etc., it acts as a splendid restorative or "pick-me-up."

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THE RECOVERY FROM TYPHOID.—In spite of the improvements in general sanitation, typhoid fever still continues to exist, and is especially prevalent during the fall and early winter months. It is more than probable that most cases occurring in the larger cities are the results of infections contracted at the summer vacation resorts, where the water and food supplies are not as carefully safeguarded as in urban communities. Although many forms of treatment, designed to abort or cut short the disease, have been advocated from time to time, it is indeed doubtful whether such regulation of the infection has ever been accomplished. As the average course of typhoid is from four to six weeks, it is scarcely to be wondered at that the patient usually emerges from the attack in a generally devitalized condition. This is accounted for not only by the general toxemia incident to the bacillary infection, but also because the practically exclusive milk diet generally adopted deprives the patient of the natural food iron which ordinarily maintains the ferric sufficiency of the blood. Some degree of anæmia is therefore almost always in evidence when convalescence is first established. The quickest and safest way to overcome this blood deficiency and to hasten revitalization and a return to the normal, is to give Pepto-Mangan (Gude) regularly and in full dosage. This thoroughly agreeable and acceptable hæmatic tonic is particularly serviceable in typhoid convalescence, because it does not irritate or disturb the digestion, nor induce constipation.

Medical Council of Canada

June Examinations, 1918

The examinations of the Medical Council of Canada will be held in Toronto and Winnipeg coincidentally on June 18th, 1918.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the June examination will close promptly at the Registrar's office in Ottawa on May 21st, 1918.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

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TORONTO, APRIL, 1918

No. 4

Original Articles

REPORTS ON THERAPEUTIC PROGRESS

(*The Therapeutic Gazette.*)

DEVELOPMENT OF THE PARAFFIN TREATMENT OF BURNS AND OPEN WOUNDS.

In the *Journal of the American Medical Association* of June 16, 1917, Sollmann says he is of the opinion that paraffins intended for the treatment of burns, etc., should comply with certain specifications, as follows:

Paraffin for use on burns, etc., should be solid, but more ductile and pliable than the official paraffin, and have a rather lower melting point. When intended especially for this purpose, it should be liquid at or below $50^{\circ}\text{C}.$; a thin film, when prepared and tested by the methods described in the paper of Dr. Leech, should be pliable at $28^{\circ}\text{C}.$, and ductile at $31^{\circ}\text{C}.$

Sollmann would recommend that in future only paraffins complying with these specifications be used in the treatment of burns. A number of these are enumerated in Leech's paper, and apparently there is no difficulty in refineries producing other brands should they be desired. He believes that these should have the preference over the more complicated and rather inferior mixtures, whether these are proprietary preparations or published formulas, unless a definite advantage can be shown for the latter. As Sollmann has previously said, all the experience he has gathered goes against any such advantages, and he considers experimentation along that line as entirely unpromising. For cosmetic purposes, it may be advantageous to give a flesh tint to the paraffin, by the addition of a trace of scarlet red or sudan.

A number of the published formulas contain added antiseptics, such as resorcin, betanaphthol, epithelial stimulants like sudan red, and aromatic oils like eucalyptol. The last is added confessedly

as a mere perfume, and doubtless performs that purpose to some degree. The others—the antiseptics and stimulants—must be absolutely useless. Solid paraffin is used familiarly as a hermetic seal for chemicals. It has been found perfectly successful for that purpose, and it does not lose its efficiency when the substance is incorporated with it. In other words, the film of solid paraffin encloses the added antiseptic, etc., tightly and nearly as hermetically as if it were enclosed in a rubber bag. Only an infinitesimally thin layer at the very surface can diffuse into the wound.

Sollmann has shown this by adding resorcin or phenol to melted paraffin, and pouring this in films of about 2 to 3 mm. thickness. The films were then immersed in water.

With resorcin, 0.2 per cent., in paraffin (0.2 per cent. in paraffin, 2 parts: liquid petrolatum, 1 part): After five days the water contained no trace of resorcin.

With 1-per-cent. phenol (carbolic acid) in paraffin: In two and a half hours there was a very faint trace, which did not increase in five days. The wax when melted with water showed an abundance of phenol.

Perhaps the greatest difficulty in the use of paraffin treatment is in the application of the first coat of the melted paraffin. This is apt to be painful if the paraffin is at all overheated—and this is often difficult to avoid in practice. The use of a brush with melted paraffin is apt to be somewhat painful, and spraying apparatus for melted paraffin are not very satisfactory.

Sollmann has found that these disadvantages can be avoided by applying for the first coat liquid petrolatum in place of melted paraffin.

Otherwise the application is quite as usual: The cotton film is laid on the liquid petrolatum; then the melted paraffin is painted over the cotton, etc.

Clinically, this method is highly satisfactory. The liquid petrolatum is entirely painless, and protects the wound against excessive heat from the melted paraffin. The liquid petrolatum could be easily applied with an ordinary oil atomizer. However, this is not at all necessary, a thin layer being easily applied with a cotton swab. Dr. Beiter expresses himself as especially enthusiastic over this modification.

The use of liquid petrolatum for the first coat has the further advantage that it promises the effective application of anesthetics, antiseptics, or stimulants to the wound. These would simply be dissolved in the liquid petrolatum (or if insoluble in this, in olive

oil). Sollmann has not yet given this method a clinical trial, but has worked out a series of solutions which are very promising. These will be enumerated in his next paper, so that they may be tried more extensively, and in this way any improvement in the treatment of burns may be hastened. It is scarcely necessary to call attention to the fact that under the present circumstances prompt improvements in these directions would be especially desirable.

Almost all surgeons who have had occasion to employ the paraffin treatment express themselves with various degrees of enthusiasm as to its advantages over the older methods of treatment. However, no exact comparisons have been published, so that it is difficult to say how much, if any, of the present enthusiasm is due to novelty. It would be desirable that actual comparisons be made between these methods, by those who have the opportunity and sufficient interest. Such experiments are already being started by several workers; but their value is likely to be proportional to the number of workers engaged; again, especially because early results are particularly valuable.

He would suggest either plain paraffin or the liquid-solid paraffin sequence as a standard of comparison. This would be applied, together with the methods to be compared, to adjacent or contralateral areas. If applied to adjacent areas, the wound should be divided by imaginary lines into zones about two inches wide (oriented by marking the skin outside the wound). It is important that the methods applied to the same patient should not be so numerous as to interfere with the practicality of the application. If it is at all possible, photographs should be taken.

Line 1: Local Anesthetics.—This appears one of the most promising improvements. Sollmann would suggest that the following be tried out, generally dissolved in liquid petrolatum, and applied by the liquid-solid sequence:

Chlorethone, from 1:200 to 1:1000 (soluble in about 200 parts of liquid petrolatum).

Orthoform-New, a 1-per-cent. suspension made by dissolving the orthoform in a little alcohol and shaking with olive oil. The orthoform is but little soluble in either liquid petrolatum or olive oil.

Camphor, from 1:100 to 1:20 (it is completely soluble in 20 parts of liquid petrolatum; incompletely in 10 parts).

Menthol, 1:10 (completely soluble).

Line 2: Antiseptics and Epithelial Agents.—These may have a field, especially in the later stages, or with slowly healing ulcers. Sollmann would suggest the following:

Eucalyptus oil, 2 per cent. (completely soluble).

Resorein, 1 per cent. in olive oil (nearly insoluble in liquid petrolatum).

Betanaphthol, 1:400, dissolved in a little alcohol and shaken with liquid petrolatum (it is nearly insoluble in liquid petrolatum).

Gentian violet, 1:5000 suspension, dissolved in a little alcohol and shaken with liquid petrolatum (it is nearly insoluble in liquid petrolatum).

Scarlet red, 0.5 per cent. suspension in liquid petrolatum (only slightly soluble).

In the same issue of the *Journal of the American Medical Association* Beiter states that owing to his inability to obtain "ambrine," various paraffin compounds were used by him—formulas containing eucalyptus, resorcin, betanaphthol, resin, cera flava, olive oil, and scarlet red, in ordinary paraffin. Beiter's series of cases represent over 4,000 dressings on every conceivable burn, and many lacerated wounds.

Prior to the employment of the wax treatment of burns he had employed the usual methods—various ointments, various aqueous solutions, the bath treatment, exposure to the air, and picric acid.

His technique in the use of waxes was as follows: All burns were carefully cleaned at the emergency hospital by well-trained men, any blebs were opened, and all the skin that could be taken off with ease was removed. The burned area was dried either by exposure to air or by gently wiping the surface with cotton pledges dipped in ether. Over the involved area a thin film of the wax was painted. (The wax is kept constantly in a water-bath, so that it is at all times ready for instant use.) Over the wax film a thin layer of cotton or a split piece of sheet-wadding was placed and a second film of wax was painted, sealing it to the skin at the edges of the cotton dressing. Over this a heavier cotton dressing was applied, and then the bandage. Beiter found that if the injured surface was wet or damp the first paraffin film would not adhere.

He began with the various paraffin mixtures with antiseptics; but he failed to see any differences, except some disagreeable features with the resin mixtures. For example, the undissolved resin sank to the bottom of the warming receptacle and injured the brush with which the wax was applied, making the application to the

injured surface painful. He therefore discarded all drugs in his wax and used the commercial "parowax," applied as above. This was sometimes tinted pink with scarlet red simply for cosmetic reasons.

The question of melting point was at first an important one, because to apply a hot solution to a large area of denuded nerve endings usually brought a prompt and energetic reaction, and to wait until the wax cooled to the extent that a film formed over it meant that it would cool below the liquid state before it could be applied. However, the water-bath or household double boiler holds the melting point very well.

A suggestion made to Beiter by Dr. Torald Sollmann has eliminated the importance of melting-point temperature entirely and greatly simplified the dressing as well as adding to the comfort of the patient at the time of the dressing, and in no way changing the results. His suggestion was that the wound be painted with liquid petrolatum, and further treatment proceeded as with the wax. In this method a layer of liquid petrolatum and then the cotton or sheet-wadding are placed over the injured area before the warm paraffin is painted on the dressing. This method has been followed in all of Beiter's recent cases and is greatly appreciated by the patients, who are the court of last appeal. It is essential that the dressing adhere at least to the skin about the edges of the dressing; otherwise the secretions are poured out over the intact skin, excoriating it, soiling the dressings, and making a disagreeable odor.

Beiter reaches these conclusions:

1. It is an inexpensive dressing; a pound of wax and a pint of liquid petrolatum, together costing about 65 cents, will dress many burns. It replaces the gauze, which at this time is quite expensive.

2. It is a comfortable dressing because it is firm and smooth, and the granulating surface does not grow through it as with the gauze. The paraffin is hard enough to make the dressing somewhat rigid and acts as a splint.

3. It is a cleaner dressing than any Beiter has used because the wound discharge is not permitted to soak through the impermeable wax covering, soiling all the linen that comes in contact with the patient. As the secretions are sealed up, there is no noticeable odor about the patient, which was a disagreeable factor with former methods of treating these injuries.

4. Superficial burns heal more readily under the wax treatment than with any other method with which Beiter is familiar.

This is due to but one fact: under former methods of application of solutions and oily substances, no matter what their kind, the granulations penetrated the meshes of the dressing in contact with the wound, and on removal at redressings these granulations were destroyed, regardless of the care with which the dressing was done or the method employed in the removal of the dressings in contact with the wound. The paraffin film method does not adhere to the injured area, and therefore does not injure the granulation tissue and the epithelium that is attempting to cover in the denuded area. Early in the course of the burn, if it is an extensive one, the entire sealed surface of the dressing will be filled with fluid, so that it is merely lifted off. Later, as the wound heals, the secretion diminishes, and the granulations begin to grow, the epithelial islands appear as white points at the site of hair follicles, and from these islands epithelization takes place rapidly because the epithelium is not injured in the dressings and redressings.

5. Deep burns do not repair any more rapidly under this method than any other method. There is no difference in the scars of burns treated by the wax method and any other method. If the true skin is destroyed, the end-result is scar tissue or an ulcer. If the scar tissue replaces the destroyed tissue, it performs as does scar tissue that develops under any and all forms of treatment, and as scar tissue has performed since the beginning of time. He has tried treating two sides of a body burned to about the same degree with the wax method, the solution method, and various other methods, and has been unable to detect any difference in the end-result, as to scar.

6. The wax method is much more comfortable at dressing time than any other with which Beiter is familiar, for the purely mechanical reason that the granulations do not grow through it, and it is lifted off painlessly. To those who have to do with burned men this means a great deal. The pain endured by the patient as the dressings were removed under previous methods of treating burns left an unpleasant impression to carry with one on the day's rounds.

7. Beiter thinks there are fewer furuncles on his burned patients since the wax has been used, but nephritis is quite as common.

THE MANAGEMENT OF THE ELDERLY CONSUMPTIVE *

"Tum a negotiis abstinendum est, omnibusque rebus, quæ sollicitare animum possunt; somno indulgendum; . . . Cibi vero esse debent ex iis, qui facile concoquantur, qui maxime alunt. Ergo vini quoque, sed austeri, necessarius usus est."—*A. C. Celsus.*

Let it be granted,

(1) That the age of the patient affects the type, course, and prognosis of his malady, and should also modify the treatment.

(2) That there is a large number of elderly consumptives of the professional and business class, potentially valuable men in the prime of life.

Then the writer contends that the elderly consumptive does not get that selective treatment which he deserves, and that as a result his type tends to be chronic, his course downhill, and his prognosis bad.

The consumptive of forty years of age or over (who will hereafter be designated as the E. C.) immediately rushes, or is rushed, off to the best sanatorium he can afford, one result of the public health tuberculosis regulations having been to make people unduly nervy about the infectivity of the disease. At the sanatorium he finds a company of persons, mostly young, and apparently very fit; they enjoy life, and regard their segregation as a sort of country-house party, or, at worst, as a temporary if somewhat tedious delay to their start in life. They don't worry, and their parents pay the fees. With the E. C. it is very different: he has been reft from business or profession certainly; from home, wife, and children, probably; his social pleasures, sport and hobbies have gone by the board; he is spending an extra £250 to £300 a year, and is not earning it. Consequently he lacks that mental tranquility so essential for a cure. He feels the discomforts inseparable from an open-air life more acutely than the younger folk, and the taking of a rectal temperature four times a day engenders a morbid introspection which is fostered by hearing the symptoms of his disease daily discussed around him. Then the food. The days when consumptives were crammed like Strasburg geese are happily over; still, the meals tend to be stodgy and tedious, and food cooked in bulk ever

* *Medical Press and Circular.*

lacks the savour of the small home-made dish. With each meal half, or even a whole pint of milk must be swallowed, diluting the already scanty gastric juice. What wonder the E. C. often has a dilated stomach and colon, and that the frequent pill and purge are needed to rid him of gas and fermenting scybala. The middle-aged stomach rebels and cries aloud for the small dainty repast and modicum of alcohol which it knows and can deal with.

Phthisis is, at root, a starvation disease, not from lack of food, but from faulty assimilation and metabolism, and these must be treated, not with *apératifs* and purges, but by food suitable in quantity and quality, and by rest both of the digestive tract and of the whole body. As a rule the sanatorium patient is sent out for exercise "on a full stomach," which is absurd; the wild beasts know better. If he is going to recover health and working capacity, the E. C. must have very special conditions of rest for body, brain and lung. At a sanatorium, a man with an early closed lesion is not encouraged to stay in bed, where he is obviously more trouble to the domestic and nursing staff; he is up and about all day and talks far too much. Silence to immobilise the lung as much as possible is never imposed, but is reserved for the ulcerated larynx. Rest hours at British sanatoria are not as strict as they should be, and the genuine *liege kur*—absolute vacuity of mind and recumbent relaxation of body—is rarely practised. The post-prandial digestive siesta is regarded as laziness.

The E. C. should start with three months in bed, irrespective of the extent of his lesion, of his temperature and of his inclinations; and the nearer his nursing approximates to that of a typhoid, the better is his chance of recovery. Patients in the early stages of all other high-mortality diseases are kept in bed; why not in phthisis? The writer has in mind a patient whom surgical exigencies, quite unconnected with his lung trouble, kept flat in bed for eighteen weeks; at the end of that time his phthisis was arrested, and he remains, fifteen years later, absolutely well. No special treatment was used or required; rest and feeding alone sufficed; and if, in this case, a fair average and reasonably early diagnosed one, why not in all, or nearly all? This man's cure, including two fortuitous surgical operations, cost him £232; excluding them, £132. A year at a good sanatorium leaves no change out of £300.

A word as to some forms of special treatment.—(1) Tuberculin does more harm than good in lung cases, especially in the elderly and chronic; boys and girls can stand it, but its use has been discontinued in many leading sanatoria and dispensaries. A

patient who is holding his own or improving, establishes a working balance between his toxins and antibodies, and it is dangerous to disturb that balance, more especially in the case of the E. C. The dose of toxin in the injection syringe can be measured to .00001 mgm.; the daily dose of auto-toxin is immeasurable, and not under exact control; the two together may just push him over the slippery ridge on which he walks, and send him sliding to destruction. The writer has seen, and in his own person experienced, prolonged reactions, focal and general, attended with rigors and profound constitutional disturbance, following small initial doses of tuberculin given by a most experienced hand. *Verbum sap. sat.*

Another weighty objection to tuberculin is the disturbance of routine and of digestion which it causes, even in the absence of reactions.

(2) The so-called nascent iodine treatment appears to be chemically and physiologically unsound. Has anyone ever proved that nascent iodine is formed or that it reaches the lesion? Intravenous formaldehyde injections were a more rational conception, and they were useless, except in so far as the normal saline used diluted the circulating toxins. This treatment rarely does any good, except in cases where the T. B. has colonised a gumma. Per contra, the iodide may and does resolve laboriously acquired protective fibrous tissue, reopening sealed foci and causing hemorrhage. In small doses, cunningly blended, K. I. has its uses, and is not used half enough; as a liquefier of viscid sputum, and for the relief of ineffectual cough, exhausting and destructive to the lung, it has no equal. But twenty grains before breakfast, and a pint of chlorinated lemonade to follow during the day! Ye gods, what an outrage on the elderly, or any, stomach!

(3) Of Spengler's I. K. the writer has not much experience; but it is a powerful and empirical agent, and its use is attended by the same dangers and drawbacks as that of tuberculin.

(4) Garlic oil and allyl sulphide may be used with advantage if—and it is a big if—they don't wreck the digestion and make the patient too miserable and objectionable. Anyone who has had a garlic-oil bomb explode in his pharynx will not readily forget it, and allyl sulphide makes one smell like a leaky acetylene generator.

(5) Artificial pneumothorax and other surgical procedures should be advised only in the presence of very special or urgent indications; the results seen by the writer have not raised his enthusiasm.

To sum up: (1) The E. C. will do better at home, or in a nursing home, than at a sanatorium. (2) In the absence of very potent indications special treatments are to be avoided. (3) Rest as outlined above is the most important curative factor; after the first two months in bed, and, of course, in the absence of marked pyrexia, dry massage of the limbs and abdomen should be given, beginning with five minutes a day, the temperature being watched. Thus the muscles and viscera are kept in tone, and dyspnea, fatigue and fever, when the patient begins to walk again, are minimised. The daily rests during convalescence should be for one and a half hours before, and for one hour after, the mid-day meal; and for one and a half hours before the evening meal. The posture selected should be that in which the patient coughs least; he can soon find this out by experiment; the semi-prone or lateral are best, and the dorso-recumbent, which disfavors drainage by gravitation, is the worst. Absolute silence should be maintained, and failing sleep or mental vacuity the lightest of light books only may be read.

(4) *Feeding*.—Many patients while in bed can tackle and digest a square meal which they could not look at if they were up and about. So long as this is so with the E. C. he must stay in bed. Let him eat and drink thrice daily, and at stated hours only. Nothing between meals, and especially not milk or tea. Thus only can the stomach empty itself and rest before fresh labors. With the evening meal a moderate dose of good wine or whiskey may be taken with benefit to body and mind. To swill the stomach with milk is a pernicious dietetic error. Let the E. C. take the extra fats and salts he needs in the form of best olive oil, two teaspoonfuls mixed or cooked with each meal, and calcii lactatis recentis gr. iiii., ter die, in the same way.

These remarks embody the writer's convictions after twenty years' professional and five years' personal experience of the disease; as such he offers them without apology to the profession, and especially to those members of it who happen to be elderly consumptives.

The following Canadian medical officers were recently honored with the Military Cross for courage and aid to wounded under fire and gas: Captains Thomas Herbert Bell, John Cathcart, Franklin Dunham, Emmet McCusker, Arthur Packer, Stanley Ross, William Henry Scott, James Woodley.

Domínion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH

A New Way to Collect Old Debts should command the attention of medical men. These old debts are very often small amounts—and very few would wish to sue all the time, for that would be what it would mean—in the court practically all the time. Something really should be done in a profession which collects only from fifty to seventy-five per cent. of its earnings. The Ontario Medical Association should take the matter up.

After the war, conciliation and arbitration, so the people expect, will be more in vogue than in any time in history. Physicians do not wish to engender ill-will and enmity, but they want to be paid for the laborious and teasing work they perform. Law hurts both parties to litigation, and very often after satisfaction is secured in court dissatisfaction continues; so it would seem well to discourage litigation.

The judges of the Municipal Court of New York City have realized all this, and have devised a scheme away ahead of the ordinary processes of law in respect of the collection of small accounts, or even larger ones. Those justices have adopted the plan of conciliation and arbitration. Any one may apply to the clerk in his district for the issuance of a note of conciliation, when the parties to the controversy meet in the private office of the justice, where the dispute is heard, and some advice given, the law explained, and quite often a satisfactory and amicable settle-

ment arrived at to the mutual satisfaction of both parties interested. That is done without cost to either party; no court or attorney's fees. If we could not have such a law for the entire province, surely something could be arranged for each separate municipality.

A CANADIAN MEDICAL WEEK IN HAMILTON

MAY 27TH—JUNE 1ST, 1918.

Arrangements for the big Canadian medical week have progressed favorably, and we are now in a position to make some announcements regarding the programme.

A personal conference in Ottawa with Surgeon-General Fotheringham, of the Militia Department, and representatives of the other agencies interested in the returned soldier problem, resulted in bringing the plans of the symposium on this subject for Wednesday evening to a very satisfactory status.

Lewellys Barker, of Baltimore, will give the Address in Medicine; Dr. Chas. Mayo, of Rochester, in Surgery; Dr. I. A. Abt, of Chicago, in Pediatrics, and Dr. Isaac Jones on the Ear. Regarding the work in the sections, the general principle will govern in all that there will be very few papers, but it is the expectation of the Committee that each paper presented will promote a very elaborate discussion, so that in a sense each will represent a symposium. The writers of the papers are asked to present a synopsis, which will be ready and in the hands of the Committee before March 25th, and which will be available for those wishing to prepare anything for discussion.

In the Section of Medicine, amongst others the following have agreed to take part: Leonard Rowntree, of Minneapolis; Allan Brown and Geo. Smith, of Toronto; Beatrice Hinkle, of New York; W. Gordon Lyle, of New York; J. Chandler Walker, of Boston, and Thomas McCrae, of Philadelphia. On Eye, Ear, Nose and Throat, Cassey Wood, of Chicago; Walter Parker, of Detroit; John Wheeler, of New York; Jos. Beck, of Chicago; H. Halsted, of Syracuse. In Surgery, McGuire, of Buffalo; Hyman, of St. Louis; Guthrie, of Sayre, Pa., and Henderson, of Rochester, Minn.

It is proposed to have, in addition to the regular programme in sections and general sessions, an innovation in the nature of a round table discussion on a matter of vital importance to the profession as a whole. Such will be arranged for late in the day

when the regular programme is finished. Accommodation for this will be limited and all seats reserved.

Plans are also under way for the presentation of a most interesting collection of scientific exhibits. There will be a pathological exhibit, which will include a very fine collection of museum specimens from the McGill University Museum, which will be in the personal charge of Dr. Maud E. Abbott, of McGill, and also an exhibit from the Babies' Hospital, of New York City, of a number of specimens illustrating pneumonias in children. It is hoped, also, to obtain a number of similar exhibits of equal interest from the museums of Queen's, of Toronto, and the Western Universities. There will be a series of daily demonstrations of clinical procedures, including those of special interest to the general practitioner, such as the Wassermann reaction, the colloidal gold functional kidney test, dark field for spirochaetae and the preparation of serums and vaccines for therapeutic use.

In the X-ray exhibit plates are requested to be sent in by men interested in this work. There will be a daily informal demonstration and a lantern will be available for all those wishing to use it.

There will be shown, daily, from four to six p.m., moving pictures on medical and surgical subjects, including subjects of interest to the general practitioner.

Definite information regarding many of these items will be available and published in the form of a bulletin for distribution on each day of the meeting.

The American Medical Association have offered the use of their charts, illustrations and literature, relating to the propaganda for reform, as carried on by that Association.

The local Committee also wish to announce that it is their wish to carry out the programme and all entertainments with the greatest respect for war conditions. While there will be no formal reception or entertainment, this ambitious city will go the limit of its capacity in its efforts to make the visiting members welcome, comfortable and satisfied.

The Aesculapian Club, Toronto, have elected the following officers for 1918-1919: President, Dr. Harry B. Anderson; Vice-President, Dr. Richard A. Reeve; Treasurer, Dr. Edmund E. King (re-elected); Secretary, Dr. George Elliott (re-elected); Executive, Drs. Fred A. Cleland, Samuel Johnston, George H. Bowles, J. Milton Cotton. The club donated \$200 to the Endowment Fund of the Halifax School for the Blind.

**PROVISIONAL PROGRAMME—COMBINED MEETING—CANADIAN
PUBLIC HEALTH ASSOCIATION AND ONTARIO
HEALTH OFFICERS' ASSOCIATION**

HAMILTON MEDICAL WEEK, MAY 27TH—JUNE 1ST, 1918.

Presidential Address, Canadian Public Health Association.—
"A Plea and a Plan."—W. H. Hattie, Halifax, N.S.

Presidential Address, Ontario Health Officers' Association.—
H. W. Hill, London, Ont.

"The Public Health Nurse."—J. A. Baudouin, Lachine, Que.
Paper (title not received).—M. M. Seymour, Regina, Sask.

"Good Public Health Service in Small Towns and Rural
Municipalities."—J. J. Harper, Alliston.

"Hints on Rural Health Administration."—J. W. S. McCullough, Toronto.

"The Control of an Outbreak of Diphtheria."—W. C. Allison,
Toronto.

"The Trail of the Medical Vampire."—Frederick Paul.

"Health Insurance."—Chas. J. Hastings, Toronto.

"The Venereal Disease Problem."—Gordon Bates, Toronto.

"Why is it Worth While to Establish Sewerage in a Small
Town?"—F. A. Dallyn, Toronto.

"Interpretation of Water Analysis."—H. M. Lancaster,
Toronto.

"Mental Hygiene."—Clarence M. Hincks, Toronto.

Symposium on Child Welfare.

Chairman's Address.—Alan Brown, Toronto.

"Child Welfare in War Time."—Isaac Abt, Chicago.

"Progress in Child Welfare Work in Europe."—Grace L.
Meigs, Washington, D.C.

"The Results of Three Years' Work in the Department of
Child Hygiene, Toronto."—Geo. Smith, Toronto.

"The Medical Student in His Relation to Infant and Child
Welfare Work."—Richard Bolt, Cleveland, Ohio.

"The Management of a Child Welfare Week in Small Cities
and Towns with Results."—Mary Power, Toronto.

Round Table Discussion and Subscription Luncheon.—Alan
Brown, Chairman.

Reviews

The Surgical Clinics of Chicago. December, 1917. Index number. Philadelphia and London: W. B. Saunders Company. Canadian agents: J. F. Hartz Company, Toronto.

This is the sixth number of volume one of this most excellent publication for surgeons. There are eighty-nine illustrations, and the clinics are by leaders in the profession in America.

The Spleen and Anemia. Experimental and Clinical Studies. By RICHARD MILLS PEARCE, M.D., Sc.D., Professor of Research Medicine, University of Pennsylvania. Sixteen illustrations, color, and black and white. Philadelphia and London: J. B. Lippincott Company. Montreal, 201 Unity Bldg.

This book sets forth the means of studying the relation of the spleen to blood destruction and regeneration in animals experimentally; also therapeutic procedure in the treatment of diseases in man accompanied by anemia. There is no attempt at the discussion of injuries to the spleen, or infections, or tumors. Incidentally leucocytosis and leucemia are touched upon. The foundation for the book originated in some twenty odd studies, subsequently published in various leading medical journals, carried out in the past five years at the John Herr Musser Department of Research Medicine of the University of Pennsylvania; and to the unknown donor of the funds for founding that department the book is dedicated.

BLIND IN HALIFAX DISASTER

The official figures are: Totally blind—41 cases; one eye enucleated—87 cases; doubtful as yet—61 cases. Total, 189 cases. In addition, 144 other cases where the final information from the social workers is incomplete.

News Items

General George Stirling Ryerson, Toronto, has been on an extended trip to the Pacific Coast.

Major M. M. Crawford, Toronto, surgeon at the Orpington Hospital, is home on two months' leave of absence.

Dr. J. L. Chabot, M.P., Ottawa, was offered the position of Deputy Speaker of the House of Commons, but refused.

Captain F. C. Wilson, Trinity, 1894, after twenty months overseas, has been invalided home following an attack of pneumonia.

Colonel Primrose, Toronto, has returned home after three years' service abroad. Latterly he has been consulting surgeon to the C.E.F. in England.

In the year 1917 Montreal had 1,000 less deaths in children under five years of age than in 1913, although the population grew in that time over 15,000.

Colonel Thomas Bedford Richardson was up from Ottawa for a week. He is now attached to the Pension Board, and will take up permanent residence in the capital.

Trouble is said to have broken out again in the Canadian Medical Services overseas—all through promotions and honors. The whole matter has been brought to the attention of Sir Edward Kemp.

Colonel William B. Hendry, in command of the University of Toronto Base Hospital at Basingstoke, England, has sailed for Canada. In his absence his command will be assumed by Major Harold C. Parsons, Toronto.

Major J. G. Fitzgerald, Associate Professor of Hygiene and Director of the Connaught and Antitoxin Laboratories in the University of Toronto, has left for active service overseas in the Royal Army Medical Corps, having been transferred thereto from the Canadian Army Medical Corps.

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- ¶ In tablet or powder form.
- ¶ Accepted by the Dominion Government as meeting all tests for Aspirin.
- ¶ The name Acetophen will identify "Frosst's" products where the German name Aspirin has heretofore been used.
- ¶ Kindly specify Acetophen if you prefer "Frosst's" Products.

Charles E. Frosst & Co.

Montreal

Major Gilbert Royce, Toronto, has been raised to the rank of Lieut.-Colonel, and has been given command of the hospital at Bromley.

McGill University, Montreal, has been donated \$1,000,000 by the Carnegie Institute, New York City, in recognition of the splendid war services of that institution.

Lieut.-Colonel R. S. Pentecost, Toronto, commanding the fourteenth field ambulance, as an original member of the first contingent, has been decorated with the 1914 star. He went overseas as a major.

The Ontario Legislature voted \$20,000 to the Public Health Department of the Western University, London, and \$15,000 to the Medical Department thereof; the University of Toronto will receive a special grant of \$175,000, and Queen's over \$80,000.

Up to December 31st, 1917, there had been 2,871 cases of tuberculosis in the Canadian forces. Of these 1,983 had been overseas and 888 had been drawn from the training camps of Canada. The number of patients discharged or died numbered 1,466. Of these 803 had been overseas, and 663 had not been out of Canada. Of those under treatment on the above date, 1,180 had been overseas and 225 were camp cases.

On January 15th, 1,051 Canadian soldiers upon whom amputations had been performed had been returned to Canada. Of these 266 had been discharged. A classification of the amputation cases shows that 328 men have lost arms, of whom 111 have been discharged. The leg amputations total 723, of whom 568 are still in hospitals. Of the men still in hospitals on that date, 73 lost arms above the elbow and 144 below. The number of men still in hospital who lost legs below the knee is 191; above, 374.



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If that were possible, the assortments excel any it has been your good pleasure to select from.

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Publisher's Department

HAYDEN'S VIBURNUM COMPOUND was first introduced in 1867, and for fifty years it has enjoyed an ever-increasing demand, due to the confidence accorded it by the medical profession for its therapeutic dependability in gynecological and obstetrical conditions. It has been used by the late J. Marvin Sims and others eminent in gynecological work.

It gains and retains confidence by the results it manifests therapeutically, the only convincing test of the value of a medicinal remedy and upon this basis we invite your consideration.

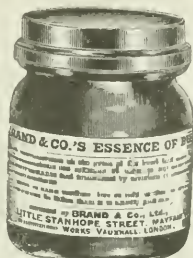
Accord Hayden's Viburnum Compound a trial in your next dysmenorrheal patient, and *you will be convinced*.

THE NEGLECTED THERAPY OF CONVALESCENCE.—The physician of education and experience, who keeps in touch with the progress of medicine generally, is well informed as to the treatment of most of the "thousand and one" ills that he is called upon to combat. The diagnosis and treatment of acute conditions as well as the successful management of the more chronic affections are subjects which he is constantly investigating and studying. It so happens, however, that after the dangerous shoals of medical navigation have been successfully negotiated and when the crisis or danger point has been passed, the physician is all too liable to relax his vigilance and to allow the patient to convalesce without sufficient attention to the therapeutic details of this important period. While the feeding of the convalescent is of great importance, the medico-tonic treatment is equally essential, in order to improve the appetite, tone the digestive, assimilative and eliminative functions generally and to hasten the time when the patient shall be once more "upon his feet." Among all of the general reconstituent and supportive measures in the therapy of convalescence, none is more essential than the reconstruction of a blood stream of vital integrity and sufficiency. Pepto-Mangan (Gude) is distinctly valuable in this special field, as it furnishes to the more or less devitalized blood the necessary materials (iron and manganese) in such form as to assure their prompt absorption and appropriation. One especial advantage of administering these hematinics in this form, is that digestive disturbance is avoided and constipation is not induced.

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ESSENCE OF BEEF AND OF CHICKEN

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Exhaustion
and
Weak
Digestion



The Best
Restoratives
After Loss
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From Any Cause

IN GLASS AND TINS

BRAND'S Essence contains no added condiments or stimulants. It is a pure meat essence in the form of a very delectable golden-coloured jelly, pleasant to take, and easy of assimilation by the most delicate digestion.

MEAT JUICE, and other Invalid Delicacies.

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NEWTON A. HILL, 25 Front St. East, Toronto.

BRAND'S MEAT JUICE

THIS preparation contains a large quantity of free, unaltered albumen. The flavor is agreeable and children and delicate patients will appreciate this. Where enrichment of the blood is required, it is highly recommended, especially in anaemia and in actual loss of blood after accidents, operations, confinements, etc. It is best administered with aerated water, as the action of the water breaks up the MEAT JUICE and renders it very pleasant to the taste. The dose for an adult is one teaspoonful



children, smaller quantities in proportion to age. For the ailing or anaemic child, ten to fifteen drops added to the ordinary food has been found highly beneficial. In brain fag, exhaustion from over study, worry, late hours, etc., it acts as a splendid restorative or "pick-me-up."

For Literature and Samples Address

NEWTON A. HILL

25 Front Street East, Toronto

1729 CHESTNUT STREET, PHILA.

March 15th, 1918.

DEAR SIR:—

I have been requested—and join personally in the request—that you will kindly publish the following resolutions in relation to the International Surgical Society:

“It was agreed at a meeting held in Paris on November 3rd, 1917, of delegates of the International Surgical Society from Belgium, France, Great Britain, Serbia and the United States of America, that:

“1. The International Surgical Society be dissolved after the publication of the Volume of Transactions of the meeting held at New York City, April 14th, 1917. Should any money remain after the publication of the volume, such money will be divided pro rata among members. Each member of the Austro-German group will receive his share; but the money belonging to members from other nations will be retained and applied to some object of scientific reparation in Belgium.

“2. A new society will be created after the war on a similar basis, to be called the ‘Inter-Allied Surgical Society.’ Surgeons of neutral countries may also be elected members.”

Yours very truly,

W. H. KEEN.

Medical Council of Canada

June Examinations, 1918

The examinations of the Medical Council of Canada will be held in Toronto and Winnipeg coincidently on June 18th, 1918.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the June examination will close promptly at the Registrar's office in Ottawa on May 21st, 1918.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. L.

TORONTO, MAY, 1918

No. 5

Original Articles

THE PROCEEDS THEREOF

By A. C. E.

Only the intense whirring of the busy sewing machine could be heard in the small living-room of the mean little dwelling.

Behind the machine sat a pallid woman dressed in plain black, unrelieved even by a white collar or a dash of lace. How deftly she guided the row of garters under the piercing needle! The dark-ringed eyes, sunken cheeks, and bloodless lips contrasted strangely with a wealth of raven hair.

On the widow's left was a piled table of finished work. By her side sat the elder daughter, Bessie, ten years of age, snipping, trimming, sorting.

On the right sat Sophie, aged eight years, neatly tying the bundles.

"One, two, three, four, five, six, seven, eight, nine," tolled the big bell high up in the tower of the city hall across the street, which kept the noon-day sun from penetrating either window on each side of the door of the rough-cast cottage.

"Bed-time, Sophie!" softly reminded the hustling mother.

The child obeyed languidly, reached to kiss the pale, sunken cheek, then passed behind the chair to similarly salute her sister, good-night.

Bessie turned her sweet, young face, putting an arm around Sophie, and looking across at her mother:

"Isn't this the anniversary of dear father's death, mother?"

"Yes, child—I had almost forgotten it—three years to-night," and the tired woman ready to collapse, desisted machining a moment, to snatch a handkerchief from her bosom to stifle the bursting sob.

Instantly two pairs of arms were around her and two fond heads nestled on her shoulders.

"Don't cry, mother," they whispered, caressing the hollowed cheeks.

The patient woman recovered herself almost as quickly as she had given way to her sorrow.

Sophie stole away to the kitchen for a drink of water, and returning, entered the rear one of the two bedrooms on the right of the living-room. The incident had awakened the sleepy little brain, and she lay awake listening to Bessie and the mother who had been aroused to conversation by the remembrance of her husband's death.

"How long shall we have to work like this, mother?" questioned Bessie. The child worked to ten every night, the mother usually going on to twelve.

"Until you and Sophie grow up, or—until something happens," sighed Mrs Carson, barely above the whirring noise of the machine.

"What do you mean 'something happens,' mother?"

"Perhaps I should not talk about it to you, Bessie—at least not to-night. I want to get this work done by twelve. I have to take it to the departmental store early in the morning. Tomorrow I may have no work to do. Then I shall tell you."

"Is it the house, mother?" persisted Bessie, ignoring the hinted admonition for silence.

The seamstress broke the threads of a stitched row of garters, reached for another lot, and considered a moment: Was Bessie old enough to comprehend their circumstances? She decided she would tell her all, surmising that the other little listener was now fast asleep, and could not understand even if she did hear.

"When your dear daddie died, Bessie, I bought this little cottage out of the lodge money I got from his insurance. I have told you that before. One of the officers, who was a real estate agent, persuaded me it would be a good way to invest the money, or part of it. So I used \$2,500 of the \$3,000 he carried. The other \$500, after paying his funeral expenses, has helped us to live. I can only make seventy-five cents a day at this work, even with the help you and Sophie give me after school. Now the \$500 is all gone and our work is all we have to live on. The work is tiring me out. I feel sick half the time and I am afraid I shall soon be unable to work at all; and then, God help us, Bessie! I do not know what we shall do," and the mother's fond heart, yearning more over her little daughters than herself, was almost ready to break. "That is what I mean by something happening."

"But couldn't something good happen, mother? Couldn't you sell our house?"

Before Mrs. Carson could frame a reply, there was heard the light, quick patter of running feet on the sidewalk, just in front of the cottage. The door was besieged by a frightened voice calling:

"Hurry up, Mrs. Carson! Let me in!"

The newcomer was a young, rather pretty girl, who occupied the front room as a lodger.

"My! Those men frightened me, Mrs. Carson," she panted, as the widow reseated herself at the sewing machine.

"Well, Ellen, you should not be out at night in this locality. I have often told you that. It's not safe."

Ellen Rowe muttered something about being at a church social and withdrew to her room to remove her hat, when she returned to the living-room.

"Can't I help you a little, Mrs. Carson, and let Bessie go to bed?" volunteered Ellen, looking pityingly at the nodding assistant.

Mrs. Carson assented and Bessie retired. She soon found that Sophie's big eyes had not yet closed in sleep; so she joined in the silent vigil.

"Mrs. Carson, I heard some news to-night," began Ellen.

"What about, Ellen?"

"I sat next to two gentlemen on the car coming down town, and I overheard them say that the big departmental store you do work for was going to build a large factory behind the city hall."

"Whereabouts?" without taking hand from work or foot from pedal, returned Mrs. Carson. She did not wish to be over-confidential with Ellen as that young lady was somewhat inclined to be flighty.

"Why, it must be this block," rejoined Ellen.

"Oh, that can't be so, or I would have heard something about it," turning the row she was stitching.

"If I were you, Mrs. Carson, I would speak to some of the managers about it when you go to the store to-morrow."

"And have them think I wanted to sell and so would not give me as good price as I would like to get. No. I think it would be better to wait and let them come to me."

A sharp knock at the door startled both of them, as they had not heard approaching footsteps.

"Don't open the door, Mrs. Carson," Ellen whispered as she jumped from her chair. "It must be those two young men back who accosted me."

But Mrs. Carson had arisen and stood at the door when the rap was renewed, but she was cautious.

"Who's there?" she called.

"Mr. Williams, Mrs. Carson. Don't you remember Williams of the lodge when your husband was buried. I've got some news for you," replied a quiet, gentlemanly voice.

"That's three years ago, Mr. Williams, and I haven't heard your voice since, or even seen you," rather complained the widow.

"Ah! That's so. I have been away in New York, and only came back to Toronto a month ago. I have promised myself to look you up the last three weeks. But I'll come back to-morrow if you're afraid to let me in. Only my news is so very important," and footsteps were heard withdrawing.

Mrs. Carson hastily unlocked the door and called after the departing man:

"Mr. Williams!"

Mr. Williams came back immediately and entered.

Mrs. Carson did not recognize him, and it was only when he had explained some details of certain transactions regarding the investment of the insurance money and buying the house, that the widow felt assured he meant nothing but good towards her. She could remember that several members of her late husband's lodge had spoken kindly to her three years ago.

As Mr. Williams seated himself on the proffered chair, he cast a hurried glance at Ellen, a glance expressive of surprise and inquiry. He had expected that the widow would have been alone. Where had he seen that self-possessed young lady before? Her presence told him he could not impart his important news that night. He would have to wait to see Mrs. Carson alone next morning.

After skirmishing about the weather and the way Toronto had grown since he left, he arose abruptly and asked if he could call the following morning.

Ellen looked her disappointment, but had to squelch her curiosity.

Mrs. Carson followed him to the door. He motioned her to the street.

"On no account sell your property until I see you to-morrow."

She promised and he was gone.

"Well, that's the funniest man I ever saw. Came to tell you important news and didn't," ejaculated Ellen.

"He was rather strange," remarked Mrs. Carson.

"Guess he didn't want to speak before me," confided Ellen.

"Possibly," as the widow resumed her sewing.

The younger woman, who was a stenographer in a small real estate office on a similar-sized salary, divined that the widow did not wish to confide any more in her. Desisting from the work, she took herself to her room. She was up and away in the morning before her usual time.

About an hour after Ellen had left so early for her work, a smooth-looking man came to the widow's door.

"Is this Mrs. Carson?" he inquired.

"Yes?"

"I have some business with you, madam. May I come in?"

"I haven't much time to talk of business I know nothing of, sir, this morning. I have to get my little girls off to school. Then I have to go out myself in about half an hour," hesitatingly replied Mrs. Carson.

"I'll only delay you a minute," as taking a paper from his breast pocket, he continued: "I want you to sign this petition to restrain the city from constructing a new asphalt top to this street. I own some property along here too. It will mean more to your taxes if the city goes on with the work. Nearly everybody on the street is signing," and plucking a fountain pen from his waist-coat pocket, he passed it to Mrs. Carson and then laid the petition on the table.

"Oh my! Yes! I'll sign that. I can't afford any more taxes," exclaimed Mrs. Carson, and taking the pen in her hand bent over the table and was about to affix her signature thereto, when a voice from the open door called out:

"What are you doing, Mrs. Carson?"

The stranger turned savagely as Mr. Williams walked in and strode quickly to Mrs. Carson's side.

"Here, what's this villainy!" he cried, as he caught up the paper, his practised eye discerning an agreement to purchase. "Now, Mrs. Carson, you promised not to sell until I saw you this morning, and here I come and find you just in the act of affixing your signature to an agreement. Lucky I came at eight-thirty instead of ten or eleven!"

"Agreement—to sell," gasped the affrighted widow, unable to grow any paler than she already was habitually. "Why, that's not an agreement to sell, surely?" He said it was a petition to restrain the city from renewing this asphalt pavement."

"Just like a whole lot of other foolish people, Mrs. Carson," reproved Mr. Williams, "never stop to read what you are going to sign. Why, look here! See that name! Don't you do work

for some one of that name?" He had caught a glimpse of a name on one of the garters. "Five thousand dollars! Such a price in these days and in such a location too! Not half nor quarter what I'm going to get you for this property. I only heard yesterday morning that this block deal was on—yes, on with a rush. That shyster"—the shyster had scooted through the open door as Mr. Williams had reached the side of the widow—"was going to euchre you out of a whole lot of money. I see it all now. That girl you have rooming with you, is too bright for you, Mrs. Carson. I remembered last night after I left I had seen her in some little real estate den."

"And she left an hour earlier this morning," offered the widow, now recovering her equipoise.

"That's it; she was wise, or else sensed my visit. I was afraid to open out with her there. You wait here, Mrs. Carson. I'll be back in a half hour," and Mr. Williams folded the fictitious petition and placed it in the inside pocket of his coat, preparatory to hastening away.

"I can't. I've got to get to the store with these goods," pleaded the widow.

"Never mind the goods—Wait!"

In a little over an hour Mr. Williams returned.

"There, read that now before you sign it—that is if you want to sign it," placing a paper before her. "Read every word of it."

Before the poor widow had finished, the tears were running down her hollow cheeks, easier to run for the channels were already there, but there was joy in her heart, and thankfulness for the friendship of a true man.

Mr. Williams had carried the spurious agreement or petition to the head of the departmental store who disclaimed any knowledge of it whatever. It was clearly a bit of sharp practice. On Mr. Williams undertaking, however, to have a proper agreement made out, one was prepared as an offer to purchase. This he carried to Mrs. Carson for her signature. The property was so very central, but deep though narrow, that it brought the tidy sum of \$50,000.

About three weeks after, late in the month of June, Mr. Williams saw the widow and her two comely girls off on a three months' stay at a farm-house on the Atlantic seashore.

AN ACT FOR THE PREVENTION OF VENEREAL DISEASE IN ONTARIO

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

1. This Act may be cited as "*The Venereal Diseases Prevention Act*."

2. In this Act,

- (a) "Board" shall mean Provincial Board of Health;
- (b) "Local Board" shall mean Local Board of Health;
- (c) "Prescribed" shall mean prescribed by this Act or by the Regulations;
- (d) "Regulations" shall mean regulations made under the authority of this Act or *The Public Health Act*;
- (e) "Venereal disease" shall mean and include syphilis, gonorrhea and chancroid.

3.—(1) Whenever any person is under arrest or in custody charged with an offence against The Criminal Code of Canada or against any Statute of Ontario or any by-law, regulation or order made under the authority thereof, or has been committed to a gaol, reformatory or other place of detention upon conviction of such offence, and the medical officer of health for the municipality or district believes that such person is, or may be, infected with, or has been exposed to infection from venereal disease, the medical officer of health may cause such person to undergo such physical examination as may be necessary, or as may be prescribed by the regulations, in order to ascertain whether or not such person is infected with venereal disease.

(2) If, upon such examination it is found that the person examined is so infected the medical officer of health shall give such directions for the treatment of the patient and, if necessary, for his detention and isolation and the prevention of infection from him as may be deemed proper and as may be authorized by the regulations, and he is hereby empowered to do and authorize any act necessary to effect the carrying out of such treatment, detention, isolation and prevention, and it shall be the duty of every such patient to carry out such directions as to treatment and of every constable, gaoler, warden, superintendent and officer having the care and custody of any infected person in any place of detention or in any hospital to see that the directions of the medical officer of health are duly carried out.

(3) It shall be the duty of every physician in medical charge of any gaol or place of detention or of the inmates thereof to report to the medical officer of health the name and place of detention whether before or after conviction of any person, whether included in the class mentioned in the preceding subsections or not, whom he suspects or believes to be suffering from venereal disease, such report to be made within twenty-four hours after the time of arrival of such person in the gaol or place of detention.

4.—(1) Subject to the regulations, where the medical officer of health is credibly informed that a person resident in the municipality or district for which the medical officer of health is appointed is infected with venereal disease and has infected or is liable to infect other persons, the medical officer of health may give notice in writing to such person requiring him to consult a legally qualified medical practitioner and to procure and produce to the medical officer of health within a time to be specified in the notice a report or certificate of such medical practitioner that the person so notified is or is not suffering from venereal disease.

(2) If such certificate is not produced within the time stated in the notice, the medical officer of health may, by writing signed by him authorize any legally qualified medical practitioner to examine such person and report or certify as to whether he is or is not suffering from venereal disease.

(3) If by the report or certificate mentioned in either of the two preceding subsections it appears that the person so notified is suffering from venereal disease the medical officer of health may exercise the powers and duties as vested in him by subsection 2 of section 3 to such extent as he may deem necessary in the public interest or to the full extent therein provided.

(4) If the person so notified produces a report or certificate from a legally qualified medical practitioner in the prescribed form stating that such person is suffering from venereal disease or if the report or certificate under subsection 2 of this section is to the same effect the medical officer of health may, in place of proceedings under the preceding subsection, deliver to such person and to the legally qualified medical practitioner signing the said report or certificate directions in the prescribed form as to the course of conduct to be pursued by such person and may require him to produce from time to time such evidence as may be deemed advisable that such person is undergoing proper medical treatment and is in other respects carrying out such directions, but in case such person fails to comply with the course of conduct

prescribed for him and to produce the evidence hereinbefore referred to the medical officer of health may, as to such person, exercise any or all of the powers vested in him by subsection 2 of section 3.

(5) No action or other proceeding shall be brought against any legally qualified medical practitioner in respect of any examination, report or certificate made or given by him under the provisions of this Act, unless and until the consent, in writing, of the board to such action or other proceeding has been given, signed by the chairman and secretary of the board.

(6) The medical officer of health, or a legally qualified medical practitioner appointed by him in writing for that purpose, may enter in and upon any house, outhouse or premises, in the day time, for the purpose of making enquiry and examination with respect to the state of health of any person therein, and may cause any person found therein who is infected with any venereal disease to be removed to a hospital or some other proper place, or may give such directions as may prevent others being infected in the said house, outhouse or premises.

(7) The powers and duties by this section conferred or imposed upon the medical officer of health, may be exercised and performed by the Board in any case in which the Board deems such action expedient.

5.—(1) Every hospital receiving aid from *Ontario* under *The Hospitals and Charitable Institutions Act* shall make effective provision for the examination and treatment upon such terms as may be prescribed of such persons or classes of persons suffering from venereal disease as may by the regulations be declared fit to be treated at such hospital, and in case of default the Treasurer of Ontario may withhold from any hospital the whole or any part of such grant which would otherwise be payable.

(2) The Lieutenant-Governor in Council shall have power to designate any hospital or other public institution or portion of any such hospital or institution under its jurisdiction or any house or building as a hospital or place of detention or isolation for the reception and treatment of any person suffering from venereal disease.

6.—(1) No person other than a legally qualified medical practitioner shall attend upon or prescribe for or supply or offer to supply any drug, medicine, appliance or treatment to or for a person suffering from venereal disease for the purpose of the alleviation or cure of such disease.

(2) Every person guilty of a contravention of subsection 1 shall incur a penalty of not less than \$100 and not more than \$500.

(3) Subsection 1 of this section shall not apply to a registered pharmaceutical chemist who dispenses to a patient of a legally qualified medical practitioner the prescription of such practitioner or who sells to any person any patent or proprietary or other medicine, drug or appliance approved of by the regulations for the cure or alleviation of venereal disease.

7.—(1) Every person who

(a) publishes or causes or allows to be published in a newspaper or magazine or other periodical publication any notice, advertisement, statement, testimonial, letter or other matter;

(b) issues or publishes or causes to be issued or published any book, almanac, pamphlet, fly-sheet, document or other matter;

(c) posts up or exhibits in any place so as to be visible to persons being in or passing along any street, highway, railway or public place, any notice, statement, advertisement, testimonial, letter or other matter;

(d) distributes, circulates or delivers or sends by post to any person any pamphlet, circular, notice, statement, advertisement, testimonial, letter or other matter, intended to recommend or suggest the purchase of or to promote the sale of any article as a drug, medicine, appliance or instrument or as part of any treatment for the alleviation or cure of any venereal disease or of any disease or affection of the genito-urinary organs or intended to convey an offer to give or prescribe any form of treatment for any of the aforesaid diseases,

shall incur a penalty of not less than \$100 nor more than \$500, and in default of immediate payment thereof shall be imprisoned for a period not exceeding twelve months.

(2) Subsection 1 of this section shall not apply to any such article which has been approved by regulations nor to books, documents and papers or other matter published in good faith for the advancement of medical or surgical science.

(3) Before any proceedings are taken under this section against any newspaper proprietor, printer or publisher, for printing or publishing or allowing to be published any notice, advertisement, statement, testimonial, letter or other matter in a newspaper the Board shall notify the proprietor, printer or publisher that the publication complained of is an infringement of this Act.

and he shall not be liable to prosecution except in respect of an offence of the same or a similar nature after such notification.

(4) Any of the matters or things prohibited by this section may be restrained by injunction or order in an action in a county or district court having local jurisdiction or in the Supreme Court of Ontario, but such proceedings shall not prevent, delay or in any way be a bar to any prosecution or other proceedings authorized by this Act.

8. Every person who, knowing or having reason to believe that he is or may be infected with venereal disease, does or suffers any act which leads or is likely to lead to the infection of any other person with such disease shall incur a penalty of not less than \$100, nor more than \$500, and in default of immediate payment thereof shall be imprisoned for a period not exceeding twelve months.

9. Every person who

(a) contravenes any provision of this Act or of the regulations for which no other penalty is provided by this Act;

(b) wilfully neglects or disobeys any order or direction lawfully given by a medical officer of health or by the Board or a local board under this Act or the regulations;

(c) hinders, delays or obstructs any officer in the performance of his duties under this Act, or

(d) without lawful authority publishes or discloses any proceedings taken under this Act or the regulations;

shall, where no other penalty or proceedings are prescribed or authorized incur a penalty of not less than \$25 nor more than \$100, and in default of immediate payment shall be imprisoned for a period not exceeding three months.

10.—(1) Every person who, publicly or privately, verbally or in writing, directly or indirectly, states or intimates that any other person has been notified or examined or otherwise dealt with under the provisions of this Act, whether such statement or intimation is or is not true, in addition to any other penalty or liability, shall incur a penalty of \$200, and in default of immediate payment shall be imprisoned for a period of not more than three months.

(2) Subsection 1 shall not apply to disclosures made in good faith to a medical officer of health for his information in carrying out the provisions of this Act, nor to any communication or disclosures made to a legally qualified medical practitioner or in the

course of consultation for treatment for venereal disease, nor to any communication authorized or required to be made by this Act or the regulations.

11. *The Ontario Summary Convictions Act* shall apply to prosecutions under this Act or the regulations, but all proceedings for the recovery of penalties under this Act, except those authorized by section 7, shall be conducted in camera and no report of such proceedings shall be published in any newspaper.

12. Every person employed in the administration of this Act shall preserve secrecy with regard to all matters which may come to his knowledge in the course of such employment, and shall not communicate any such matter to any other person except in the performance of his duties under this Act, and in default he shall in addition to any other penalty, forfeit his office or be dismissed from his employment.

13.—(1) The Board subject to the approval of the Lieutenant-Governor in Council, may make regulations:

- (a) prescribing the forms of notices and certificates to be given or issued under this Act;
- (b) declaring what shall be deemed to be lawful and proper methods and remedies for the treatment, alleviation and cure of venereal disease, and requiring all advertisements, statements, testimonials, letters or other matters of or regarding such methods and remedies to state the date and number of the official approval of the same and such other information as may be deemed desirable;
- (c) prescribing the course of conduct to be pursued by any person infected with venereal disease in order to effect a cure and to prevent the infection of other persons;
- (d) for distributing to medical practitioners and hospitals such information as to the treatment, diet, and care of persons suffering from venereal disease and may require medical practitioners and hospitals to distribute the same to such persons;
- (e) prescribing rules for the treatment of such persons in hospitals, places of detention and other institutions;
- (f) for preventing the spread of infection from persons suffering from venereal disease;
- (g) requiring medical practitioners, hospital superintendents and heads of places of detention and public institutions to make reports upon the cases of venereal disease coming under their treatment or care but, except

where it is otherwise provided in this Act, without disclosing the name or address of any person suffering from venereal disease, and prescribing the form of such reports;

- (h) providing for the putting up of notices and placards dealing with venereal disease, its cause, manifestation, treatment and cure in all public urinals and conveniences and similar places;
- (i) providing for public advertising and placarding of such information relative to the treatment and cure of venereal disease and the places where proper remedies can be obtained as may seem desirable;
- (j) imposing penalties for the violation of any provision of this Act or anything covered by this Act or any regulation;
- (k) generally for the better carrying out of the provisions of this Act and for the prevention, treatment and cure of venereal disease;
- (l) prescribing the procedure to be adopted and the evidence to be required in case of an appeal to the Board from any action or decision of a medical officer of health under this Act;
- (m) providing for the procedure relative to detention for the purpose of examination or cure or the prevention of infection, so as not to interfere with the course of justice in case of persons under arrest or in custody previous to trial for any offence committed against the provisions of this Act or anything therein authorized or under any other Statute or the Criminal Code;
- (n) prescribing the method and extent of the examination of any person with a view to ascertaining whether or not such person is infected with venereal disease.

(2) The Board, with the approval of the Lieutenant-Governor in Council may, out of any moneys appropriated by the Legislature for the purposes of the Board, provide for the manufacture and free distribution to local boards and to medical practitioners and hospitals of any drug, medicine, appliance or instruments which the Board may deem useful or necessary for the alleviation, treatment or cure of venereal disease or the prevention of infection therefrom.

14.—(1) The treasurer of the municipality shall forthwith, upon demand, pay the amount of any account for services performed therein under the direction of the local board and for

materials and supplies furnished, or for any expenditure incurred by the local board or by the medical officer of health in carrying out the provisions of this Act, or the regulations, after the local board has, by resolution, approved of the account and a copy of the resolution certified by the chairman and secretary has been filed in the office of the treasurer.

(2) The corporation of the municipality shall be entitled to recover the amount expended in providing such medical attendance, medicine, nurses and other assistance and necessities for any person having any venereal disease from such person, but not the expenditure incurred in providing a separate house or in otherwise isolating him except where such isolation is provided in an hospital or other place designated as such under this Act.

15.—(1) Every person who deems himself aggrieved by any action or decision of a medical officer of health under this Act may appeal therefrom to the Board by giving notice in writing to the Board and to the medical officer of health.

(2) The Board may require the appellant to furnish such information and evidence and to submit to such examination as may be prescribed or as the Board may deem necessary to determine the matter in dispute.

(3) The decision of the Board shall be final.

16. This Act shall come into force and take effect on the 1st day of July, A.D. 1918.

Canadian Medical Directory. First edition. Price \$1.00 Montreal: Canadian Medical Directory.

This should be a welcome Canadian publication. It comprises a list of physicians and surgeons, arranged by locations, etc., etc.; medical societies, hospitals, etc.; reciprocity, etc., also, Newfoundland; Medical Councils; in fact everything relating to the medical profession and its interests throughout the Dominion.

The Surgical Clinics of Chicago: February, 1918, Volume II, No. 1, 73 Illustrations. Philadelphia and London: W. B. Saunders Co., Canadian Agents. The J. F. Hartz Co., Toronto.

Our surgeons will find this a very interesting volume covering several important subjects in surgery.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

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GEORGE ELLIOTT, MANAGING EDITOR.

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Vol. L.

TORONTO, MAY, 1918

No. 5

COMMENT FROM MONTH TO MONTH

The Prevention of the Venereal Diseases—syphilis, gonorrhea, and chaneroid—presents two sides in prophylaxis, the moral, continence; the artificial, immediate therapeutic applications. Innumerable articles are appearing on the whole subject of the venereal diseases, not alone in the medical press, but pretty nearly in all classes of newspapers, journals and magazines. Some hold that the two sides of prophylaxis must go hand in hand; some, that it induces to evil to even think of immediate therapeutic applications; and again some, who claim that the two can be prosecuted effectively and distinctively. It seems an impossibility for a medical journal to advocate anything but what will prevent disease in any form, while leaving to others the preaching of morality. The prime duty of physicians is to prevent disease, and cure it, if possible. Of course, the medical profession can combine the two, but artificial prophylaxis, all those artificial means to be used to prevent infection following wilful exposure, must take first place in the medical man's connection therewith. The evil has been committed; prevent the disease; educate toward any further mishap to the innocent and the guilty as well. We are not at the beginning of these diseases; we are in the midst of them—and thickly at that, if all reports are to be believed, although physicians have been heard to say they see no more of

these diseases than in ante-wartime days. The army surgeons do, of course.

That artificial prophylaxis is vital, effective, may be seen from a report issued by Dr. Charles Riggs, of the United States Naval Medical Corps. A record of 6,746 prophylactic treatments show 127 failures, or 1.88 per cent. Others have found the failures lower, namely, 1.4 per cent. For instance, in a published series of 5,103 treatments, concerning which the time of treatments subsequent to exposure is known, only 81, or 1.58 per cent, were ineffective. In this series the time of artificial treatment is most striking in effectiveness, as seen in the following: after one hour, 1; after two hours, 7; three, 4; four, 2; five, 3; six, 5; seven, 6; eight, 16; nine, 10; ten, 11; after more than ten, number of infections, 16. In 1,180 treatments at the end of the first hour, there was only one case of infection. The case for artificial treatment is well proven, truly proven with great interest.

Now, if every illicit intercourse were promptly so treated immediately, the black plague and its congeners would pass away, as other plagues have done, or are doing, with intelligent and unsentimental handling.

In spite of family training, day schools, Sunday schools, churches, moralists, clergymen, physicians, the entire community, it must be admitted that continence has not up to the present made much headway. The sexual instinct is as deeply implanted in man as the fighting instinct. Man is not going to get away from either of them. How, then, is artificial prophylaxis going to do more harm than good? Will the man seek gratification of his sexual appetite more because he feels he has the protective from danger to disease? Riggs does not believe there is any truth in this, because, on questioning many men, he and other medical officers have yet to hear one man answer: "I didn't think there was any danger if I took the prophylactic." So that a knowledge of artificial prophylaxis does not tend to increase illicit sexual congress. If a man does take his first false step why should he be denied the remedy for prevention of dire consequences to himself, and quite often to others. In fact, it may be asserted, that to deliberately neglect this procedure, the negligence will only lead to an added incidence of venereal disease. Attack the diseases in every way possible! That is the sane method to be employed.

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Montreal

News Items

The Western University, London, Ontario, will admit women as students in medicine.

Dr. Chas. J. Hastings, Toronto, M.O.H., has been elected president of the American Public Health Association.

Lieut-Colonel Walter McKeown, Toronto, after a trip through Ireland, has been appointed O.C. of the Canadian hospital formerly commanded by Colonel C. F. Wyld.

It is reported that Colonel Alex. J. Mackenzie, Toronto, is returning from nearly four years overseas service and will likely be appointed to superintend all the military hospitals in Toronto.

Captain Percy B. Brown has returned to his home in Toronto after twenty months' overseas service in India, Africa, and Mesopotamia. He is now on the staff of Davisville Hospital, North Toronto.

Dr. O. R. Avison, President of the Severance Union Medical College at Seoul, Korea, is back in Toronto on a visit. Dr. Avison was a practising physician in Toronto twenty-five years ago when he went to Korea.

Lieut-Colonel Wm. B. Hendry, Toronto, who has been in command of the University of Toronto Base Hospital at Basingstoke, England, has been home conferring with the University authorities re the enlarging of that hospital staff. Colonel Hendry has returned overseas.

Major Alex. McKay, Toronto, who has been overseas with the Ontario Military Hospital staff at Orpington, and who was formerly chief medical inspector of schools in Toronto, has been appointed successor to the late Dr. R. W. Bruce Smith as Inspector of Prisons and Hospitals for the Insane in Ontario.

Major J. F. Boyer, Toronto, who went overseas three years ago as a captain with the University of Toronto Base Hospital, after serving in Salonica, returned to England and has since been attached to hospitals at Shorncliffe, Ramsgate, and lately Buxton. He is returning to Toronto.

The Hamilton week of the medical associations is from the 27th of May to the 1st of June. It promises to be one of the biggest conferences in medical affairs for some years in Canada. Canadian and Ontario medical men, in particular, should make early arrangements to attend the meeting.



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Reviews

Tumors. Their Nature and Causation. By W. D'ESTE EMERY, M.D., B.Sc., (Lond.), Director of the Laboratories, King's College Hospital. Price, 5 shillings. London: H. K. Lewis Co., Ltd.

This book is an endeavor to show that cancer may be due to a parasite, although that is held to be untenable by pathologists so far. It is reasoned out by analogy with other diseases caused by parasites. It is a controversial essay worthy of study.

Essentials of Prescription Writing. By CARY EGGLESTON, M.D., Instructor in Pharmacology, Cornell University Medical College, New York City. Second Edition, reset. 32mo of 134 pages. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$1.25 net.

Four years ago, the first edition of this practical little book for medical students appeared. It is designed to prepare him to construct a grammatical and proper prescription for any need. The author's experiences are set forth in a concise form.

The Action of Drugs. By TORALD SOLLMAN, M.D., Professor of Pharmacology and Materia Medica, in the School of Medicine of Western Reserve University, Cleveland. 12 mo. of 213 pages. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$1.50 net.

These lectures, which are now published in book form, extended over several years, being delivered to the senior students of the Cleveland School of Pharmacy. The medical student will find them valuable for very careful study.

The Third Great Plague. A Discussion of Syphilis for Everyday People. By JONN H. STOKES, A.B., M.D., chief of the Section of Dermatology and Syphilology, The Mayo Clinic, Rochester, Minnesota. 12mo of 204 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$1.50 net.

As an educator in the campaign against venereal diseases this book is timely, written with authority, and evidently intended for wide popular reading.

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children, smaller quantities in proportion to age. For the ailing or anaemic child, ten to fifteen drops added to the ordinary food has been found highly beneficial. In brain fog, exhaustion from over study, worry, late hours, etc., it acts as a splendid restorative or "pick-me-up."

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Medical Council of Canada

June Examinations, 1918

The examinations of the Medical Council of Canada will be held in Toronto and Winnipeg coincidently on June 18th, 1918.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the June examination will close promptly at the Registrar's office in Ottawa on May 21st, 1918.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. L.

TORONTO, JUNE, 1918

No. 6

Original Articles

SOMETHING MORE OF IMPORTANCE ABOUT ALCOHOL*

At the last meeting of the American Medical Association the House of Delegates passed a series of resolutions to the effect that alcohol had no value as a food or as a drug, and, at that time, the writer of this article sent a letter of protest to the *Journal of the American Medical Association* pointing out that the food value of alcohol had been well established by all reputable scientific investigators and that a very large number of medical practitioners believe that, when properly used, it possesses definite powers as a remedial agent. In this letter of protest statements were quoted from leading works and authorities on pharmacology which took a strong stand along these lines, and it is very probable that had more time been given to the consideration of this important question less radical statements would have appeared.

Again, in the protest to which we refer, it was pointed out that during these war times it is vitally important that medical men, because of their training, should be looked to for advice which in value is unassailable, and that they should represent the well-balanced portion of the community rather than those who are ultra-radical or ultra-conservative.

It is of vital importance that the moral aspect of the abuse of alcohol shall always be carefully separated from its employment as a drug. This moral aspect can be dealt with with more or less accuracy by the public in general, but the medical side of the matter can only be properly debated and decided by those who have medical training and who are sufficiently judicial in mind to make a clear separation between moral and medical questions.

That alcohol is a drug, and a powerful one at that, no one will deny, and we think it is a statement that also cannot be controverted that any drug which possesses power, if properly used, is capable of doing good. It begins to look as if the war against

*The Therapeutic Gazette.

alcohol as a beverage might result in its complete overthrow, and while such an overthrow may result in much benefit to those who are so constituted that they cannot use it properly, it may also result in depriving those who need it, as a medicine, of something which is really of service to them when ordered by a physician.

Without any intention of entering into the bitter controversy which has raged about this subject for many years from the moral aspect, we think that our readers will be interested in the conclusions which have recently been arrived at by the Central Control Board of England, a special department set up to deal with liquor traffic under the Defence of the Realm Act. The *Lancet* of March 2 points out that the success which has attended its operation has been due in the main to the fact that, unlike previous efforts to deal with the questions involved, the policy of the Board has not been framed to fit the conceptions of prejudice or enthusiasm.

Formal and explicit evidence of this characteristic has now been given by the publication, under official auspices, of a study of the physiological action of alcohol. This work, which is essentially a review of the existing state of knowledge on the subject, has been prepared by the Advisory Committee appointed by the Control Board in November, 1916, the chairman of this Advisory Committee being Lord D'Abernon, the other members being Sir George Newman, M.D., Professor A. R. Cushny, Dr. H. H. Dale, Dr. M. Greenwood, Dr. W. McDougall, Dr. F. W. Mott, Professor C. H. Sherrington, and Dr. W. C. Sullivan. Many of these men are familiar to all medical men throughout the world as representing the highest possible standards.

As the *Lancet* points out, their work is a statement of our ignorance as much as of our knowledge, and this adds largely to its educational value, inasmuch as nothing has contributed more to the confusion of opinion in regard to the drink problem than the perpetual promulgation of views and theories based on erroneous or inadequate data. Again, the *Lancet* well points out that the work deals effectively with the old and futile question, "Is alcohol a food or a poison?" The committee has dealt effectively with the fallacies underlying this mode of stating the case, and has drawn up a series of conclusions which are designed to determine in what precise sense can alcohol be described as a food and under what conditions it acts as a poison. To these questions the committee gives replies as positive and definite as the present state of scientific knowledge permits, which are as follows:—

1. Alcohol is undoubtedly a food, in the sense that its combustion in the body can supply a considerable part of the energy needed by the organism.

[It is for this reason that alcohol is useful in many cases of exhausting fevers since it is readily oxidized and the increased combustion processes of fever burn it up more readily than in health.—Ed.]

2. Unlike other foodstuffs, it cannot be stored in the system in altered form, to be used as required, but remains as alcohol in the blood and the tissues, on which, if present in excessive amount and over prolonged periods of time, it exercises a deleterious influence.

3. By reason of this latter characteristic alcohol cannot safely be used as a large element in the diet without risk of injury to health, and it is on this account, and also because of its disturbing effect on nervous functions, quite unsuitable as a staple food for industrial workers.

4. Its action on the nervous system, which is the chief *raison d'être* of the ordinary use of the alcoholic beverages, in health and in disease is, with the possible exception of its effect on the respiratory centre, essentially narcotic and not stimulant.

5. The moderate use of alcohol by the average normal adult is physiologically unobjectionable, provided that it is limited to the consumption of beverages of adequate dilution, taken at sufficient intervals of time to prevent a persistent deleterious action on the tissues.

These conclusions furnish a solid basis for the discussion of the wider issues of the drink question, and, with the *Lancet*, we are glad to learn that this work is in progress and that the committee is already in possession of the results of experimental investigations concerning such questions as the effect of dilution on the action of alcohol and the difference in inebriating effect between beer, wines and spirits. Every one in this country and in England will, we think, be interested in the further publications of this important group of British students and investigators.

As we have repeatedly pointed out, the question of the use of alcohol by healthy persons is as widely separated from its use by certain people who are ill as it is possible for two questions to be. It will be unfortunate if in the effort to prevent the abuse of alcohol as a beverage legislation results which will prevent its use as a remedy, the more so as whiskey, brandy, gin and other preparations possess certain properties which ordinary alcohol does not.

ARTIFICIAL LIMBS AND THEIR INFLUENCE UPON METHODS OF AMPUTATION

LITTLE (*British Medical Journal*, Oct. 27, 1917) observes that in order to make a good limb, the surgeon and the limb-maker must have some knowledge of each other's limitations. In the lower extremity end pressure and leverage are the strains to which the limb is most exposed. In the upper extremity prehension and traction are required.

The weight is borne in two ways, often, or generally, combined: by direct pressure of a part of the body downwards, such as on the end of the stump, or on a convenient bony process, such as the tuberosity of the ischium; or by oblique pressure, as when the artificial socket forms a more or less conical cavity into which a conical portion of the body fits.

Leverage is exerted by the lateral surface of the stump pressing against the side of the surrounding socket.

An ideal amputation stump would be as long as possible, it would be covered by sound movable soft parts, the scar would be placed in a position where it would not be exposed to pressure, and it would not be adherent to the bone. It would have enough muscles attached to it to move it with adequate force, and no inflamed or hypersensitive nerve ends would be palpable in it.

The end or ends of the bone or bones would be rounded so as not to hurt the soft parts under them, and the blood supply would be free and the skin well nourished.

At first sight it would appear that this ideal is most nearly approached by an exarticulation, which preserves the full length of the limb segment, and does not involve any section of bone with its possibilities of infection and necrosis. Further consideration and experience of modern artificial limbs lead to the conclusion that, except in the cases of the hip and shoulder, exarticulations are to be avoided, and that amputation through the limb segment above the joint is to be preferred.

The following weighty objections to amputations through joints have been made and, as the author thinks, may be accepted as valid:

The articular enlargement, which is a prominent feature of all long bones, makes the resulting stump bulbous in form, a form which becomes more marked as atrophy of muscles goes on, leaving the dimensions of the bone unaltered. Such a bulbous

stump, larger in girth at its lower extremity than at its middle, cannot be closely fitted with a rigid socket, such as forms the best support. Also the artificial limb must be wider than the natural one by the thickness of the walls of the socket.

The artificial joint must either be fitted below its proper level or else it must be placed on the sides of the bone end, and the limb must be still wider than its fellow and consequently unsightly.

To cover the articular enlargement extensive flaps are needed, and these must sometimes be of thin skin. Such flaps are often deficient in vitality and likely to slough.

In the lower extremity a stump capable of bearing some at least of the body weight on its end should be aimed at. Every pound of pressure here means less pressure on other parts, which in some cases do not bear it well.

An analysis of the records of 549 cases of amputation of the lower extremity seen recently at Roehampton shows that in 275 of these—almost exactly half—it was found advisable to fit an end-bearing pad. As might be expected, the proportion varied widely in the different regions. In the upper third of the thigh only 9 per cent. were thus fitted, in the middle third 32 per cent., in the lower third 77 per cent.

The surgeon who has to deal with many of these end results cannot fail to be struck by the prevalence of wide adherent scars in the upper two-thirds of the thigh. Some of these, not many, are unmodified guillotine operations; the majority are not, and many are the results of later operations in which attempts have been made in vain to produce a stump covered by sound skin. Some of these unfortunate persons have suffered as many as seven amputations on the same limb.

In the upper extremity the question of end pressure does not arise, and here the condition of the lower part of the anterior and external surfaces of the stump is of most importance, because these surfaces have to take much of the pressure of the leverage action on the bucket. Many arm stumps with large adherent guillotine scars covering the end of the bone have been found to be quite satisfactory in practice.

The presence of osteophytes is rarely any hindrance. These are seldom large, except in the thigh, and they are usually situated about the femoral insertions of the adductor muscles, which are not exposed to much pressure.

In exarticulation at the shoulder the lines of scar should avoid the clavicle and the prominent bony ridges of the acromion, etc., for on these the shoulder-cap must press.

Amputations in the upper third of the arm offer very little hold for the socket of an artificial limb. Owing to the arrangement of the muscular attachments around the joint the upper three inches of humerus, or even more, are unavailable, and as in the arm of average length the upper third is only a little over four inches long, very little is available even in an amputation at the junction of the upper and middle thirds. A good deal can be gained by removing wholly or in part the folds of the axilla—that is, the pectoralis major and the teres major. This has been done with good result and seems to be an operation worth doing in suitable cases. The latissimus dorsi has not been interfered with so far as the author knows. It is less in the way than the other two muscles.

A gain of one inch of stump here is of the very greatest value, and as large adherent scars covering the end of the bone are comparatively unobjectionable in the arm, the surgeon in amputating above the middle of the shaft of the humerus should save as much bone as possible, even though there may not be skin enough to cover it completely.

The drag upon the adherent scar, which gives trouble in the lower extremity, is seldom complained of in the upper, owing to the absence of much upward thrust.

The objections to amputations through joints in general apply to the elbow with particular force, owing to the shape of the bones. If it is impossible to get a forearm stump extending at least an inch and a half below the insertion of the tendon of the biceps, amputation above the condyles of the humerus is to be preferred.

Similar considerations are of weight here to those mentioned in discussing the shoulder region. The action of the biceps tendon, which tends to throw off the bucket when it contracts in flexion, is one of the chief difficulties in these short forearm stumps. Unfortunately, this tendon cannot be spared, and its removal is out of the question. The remains of the bellies of the flexor muscles, however, are of no use, and have been removed in some cases with more or less advantage, enabling a better grip on the stump to be obtained.

The middle third of the forearm gives good stumps, but the lower third is not a favorable site. Many stumps here are cold and cyanotic and the skin tightly stretched and adherent. Moreover, the ends of the bones are often tightly soldered together by fibrous tissue or even bone, and the movements of pronation and supination are lost.

It is true that the most directly acting pronator, the quadratus, is sacrificed if the lower third is removed, but experience leads

to the conclusion that good voluntary movement is possible without it, if the ends of the radius and ulna are free. It takes some time and practice, however, to enable the patient to carry out these movements, even when fitted with a suitable arm. The tendency is to use the shoulder-joint instead of the radio-ulnar.

Below the wrist, if the carpus and base of the metacarpus can be saved, it is worth while, provided movement is preserved. The short stump thus formed can be used to actuate a movable thumb with considerable force by means of a simple appliance. It is a commonplace of surgery that any part of a finger or thumb is worth saving. If one active finger or a thumb is left it is easy to fit a stump to which it can be opposed, and thus give the picking-up action and the power of holding a pen.

In the lower extremity exarticulation or amputation between the trochanters is better than amputation in the upper third of the thigh. The upper third, anatomically speaking, in the average limb includes a little more than six inches of femur, which gives only three or four inches of stump below the pubes. Such a short stump is unable to move the lever formed by the thigh bucket with sufficient force no matter how light the limb may be.

Such improvements have been made in fitting what is rather inaptly called a "tilting table" that patients who have tried both the ordinary thigh bucket and this appliance usually declare that the latter is much the best. Certainly they walk better in it. This form of prosthesis forms one of the greatest improvements in artificial limb-making during the war.

In the middle and lower thirds of the thigh the general considerations apply which have been outlined. The middle third is the site of nearly half the amputations of the lower extremity treated recently at Roehampton. The exact figure is 42.8 per cent. No other region approaches this in frequency, the next being the lower third of the thigh and the middle third of the leg, each with 11.6 per cent. only.

In this region the objects aimed at should be a non-adherent scar behind the bone, and a good disposition of the muscular masses on the inner side. If the great adductor muscles are allowed to retract too much a too conical stump results, and the bunch of soft parts at the top of the thigh just below the pubes forms a serious obstacle to the fitting of a socket. The tendons and fasciæ should, therefore, be sutured if possible over, but at least near to the end of the bone.

In this relation it may be worth while to recall that the femur on a thigh stump is eccentrically placed. It is almost subcutaneous along the outer side of the thigh, and most of the lateral pressure

of the artificial limb is borne on this outer surface. This position is very obvious on X-ray plates. Therefore, in making incisions preliminary to or during amputation this surface should be spared if possible.

One of the greatest troubles of the orthopedic surgeon and the limb-maker is the prevalence of flexion contraction of the hip in cases of thigh amputation. In treating such serious injuries it is natural that the primary consideration should be the early and complete healing of the wound. To secure this and for the comfort of the patient the stump is often propped up upon a pillow, thus favoring shortening of the flexors of the hip. This contraction, unless very severe, is masked by a compensatory lordosis and often unsuspected by those concerned, but when the patient is examined with the sound thigh well flexed upon the abdomen the true state of affairs is revealed.

Practically every case of amputation of the thigh which was admitted to Queen Mary's Hospital at Roehampton was found to have some flexion contraction, or diminution of the normal range of hyperextension, and had to undergo a course of massage and passive motion, or the operation of tenotomy and fasciotomy, before a leg could be satisfactorily fitted. The structures most concerned are the tensor fasciæ femoris, the long adductors, the iliopsoas, and sometimes even the capsule of the hip-joint.

It is much to be wished that, in every case in which the general conditions are favorable, the stump should be fully extended, while the opposite thigh is fully flexed upon the abdomen at least once daily during treatment of amputations in this region.

The lower third of the thigh, just above the condyles, offers the best thigh stump for fitting with an artificial limb. If a long anterior flap is made, even though there may be an adherent scar behind the bone, a good end-bearing stump often results. If the patella can be securely fixed to the end of the bone so much the better.

The general objections to exarticulations apply to the knee-joint. Not many such stumps are satisfactory.

In the leg below the knee the most favorable site is the lower part of the middle third. The old seat of election about four inches below the joint was intended for kneeling legs. Nowadays kneeling legs are avoided and only used when a stump below the knee is too short to work a socket. With skilled fitting, however, even very short stumps are useful. A good gait has been obtained with as little as two and a half inches of tibia, but this was an exceptional case. Rarely is a good result obtained with less than three inches, and then generally the stump should be capable of

end-bearing. Much depends on the bulk of the soft parts. When these are voluminous the difficulty is increased.

These short leg stumps give a better gait than is got with a kneeling leg, and the artificial limb is less unsightly. Amputation in the lower third of the leg seldom gives a satisfactory stump. The bone surface at the end is too small for good weight-bearing, and the skin is often badly nourished, cold and cyanotic.

No one can deal with many below-knee stumps without being struck by the frequency with which the fibula is cut longer than the tibia. This constitutes an obstacle to successful fitting. The fibula bears pressure on its end very ill, and often it wobbles about and is insecure.

Although many patients with Syme's amputation ask to have one performed higher up, it is deserving of its great reputation. If properly done it gives a painless weight-bearing stump. The bones should be sawn through well above the internal malleolus so as to avoid too bulbous a stump, and care should be taken to make the section at right angles to the often incurved lower fourth. Otherwise a varus stump is likely to result. Too low a section leaves no room for a strong transverse ankle-joint, and a too voluminous heel-flap means an unsightly artificial foot and boot.

Chopart's amputation gives a good bearing surface, but generally the calf muscles pull up the heel and tilt the lower end downward, and the painful pressure on the scar results. The stump is too short to give a spring to the gait, and it is well-nigh impossible to fix any prolongation onto it. It has no advantage over a Syme, and the author submits that if the metatarsus cannot be saved nothing below a Syme is worth doing.

Elmslie in the same publication, as an orthopedist, commenting upon the side of the work which should be taken up by the fitter of artificial limbs, states that, in general, end-bearing, either complete or partial, may be expected when the bone section is thoroughly cancellous bone, when the bone is covered with thick skin and muscle or fascia, and when the skin over the stump is itself naturally adapted to weight-bearing. The type of end-bearing stump is that given by Syme's amputation. The other bearings used should be those upon the tuberosity of the ischium and upon the head of the tibia. Although a certain amount of bearing may be taken by fitting the stump tightly and so getting circumferential pressure upon it, yet this must not be trusted to any great extent, as by this method the skin is apt to be stretched tightly over the end of the stump, and if the scar is terminal or the skin thin this may result in ulceration.

Following amputation through the thigh the artificial limb is generally suspended by a sling over the shoulders, the lower end of which is attached to the leg below the knee, either directly or by passing over a pulley. In this way it acts as a knee-extending mechanism. In short stumps, however, this is insufficient to enable the stump to remain securely in the bucket and to control the limb; therefore a pelvic band is added. The mechanism used to extend the knee is of two sorts. The older one is by the use of a spring, either of rubber or of steel; it should act in such a way that the knee is only extended by it from the right-angled position; if it acts from a position of greater flexion than this it will prevent the man from sitting comfortably with a flexed knee. The second method is by the use of the sling from the shoulders, which pulls upon the front of the leg piece when the shoulders are raised or when the weight of the swinging limb comes upon it, thus extending the knee. The stops which limit the movement of the knee in both directions must be so strong as to be nubreakable even when the whole weight of the body exerts its maximum leverage upon them.

In the present types of legs the movement allowed at the ankle-joint is small in range (only about 20 to 30 degrees), and this movement is stopped by the compression of springs, usually of rubber, but sometimes of steel. The smallness of the range of movement is not found to interfere with walking—in fact, the walk is quite good if there is no movement at all.

Correct building of the limb is important if stability is to be secured. Two points are essential: first, the axis of the knee-joint must be behind the line which represents the centre of gravity of the body when it is erect; and secondly, the foot must be mounted in slight equinus (20 degrees), and must be prevented from reaching the right-angled position.

The routine material for the construction of an artificial leg is still willow, and as a rule the thigh and leg pieces are constructed of single pieces of wood, appropriately hollowed out, the joints being made of steel. It is not an advantage to have very lax joints in an artificial leg; as a rule the joints are lined with a bushing of leather, by adjusting which they can be made stiffer.

Hip-joint amputations are fitted with a leather cup, which entirely encloses the stump, fitting it very accurately. It is attached to the trunk by a steel pelvic band; to it is attached the limb by a hinge joint on the outer side, and by a steel piece which runs around on a quadrant situated upon the under surface of the leather cup on the inner side. It is possible, by placing the hip-

joint far forward and the knee-joint far back, to fit a limb which is stable with both hip and knee-joints free; but it is customary to fit locks to both these joints, so that the man may walk with one or other free.

In amputations through the knee the lower end of the stump is larger than the part higher up; therefore the front of the bucket must be cut away and filled in by a lacing piece of leather, or else an entire leather thigh piece must be used. In either case the leg piece is attached by outside steel joints. For amputations below the knee a wooden bucket is accurately fitted to the head of the tibia, and below the patella; the weight should be borne upon these points, although in exceptional cases it may be necessary to fit a leather thigh bucket reaching right up to the tuberosity of the ischium and taking a bearing there.—*Therapeutic Gazette*.

FLAT FOOT AND ITS TREATMENT

One of the things that we have learned from the examination of men for the army, is that a large number of the young men of military age are handicapped because of flat foot. In civil life this is not always a serious matter, but a soldier is only as good as his feet, and therefore any deformity of the foot is of the greatest importance.

Of the white men who applied for enlistment in the United States Army during the period from 1912 to 1915 inclusive, 55 out of every 1,000 were disqualified because of flat foot. Thirteen per cent. of the men examined by me since the outbreak of war were rejected for this reason. A much larger number of men had flat feet, for those with this deformity in moderate degree were passed. A large number of the men who were so passed, later appeared on the sick list, because the condition of their feet precluded their engaging in the strenuous exercise incident to the training of the soldier.

About 400 such men from various parts of the country were placed under treatment by Lieutenant H. B. Perry, Medical Officers' Reserve Corps, at Fort Ethan Allen, Vermont, and about 90 per cent. were returned to the ranks cured, or so relieved that they were able to continue their training without discomfort.

The following exercises for the treatment of flat foot are those that have been found adapted to conditions met with at an army post and are now in practice at Fort Ethan Allen, Vermont:

The feet and legs should be free. Shoes and stockings should be removed. Underdrawers and breeches should be loosened so as in no way to restrict or limit muscular action of the legs.

The toe exercises are the first ones taken up. The men stand on a raised platform—a two-inch plank is sufficient; they are then directed to flex the toes to the extreme point of flexion with a hard pull of the flexor muscles of the sole of the foot at the extreme point of flexion. This is followed by extension without effort. This exercise is repeated continuously from five to ten minutes, the shorter period at the beginning, gradually lengthening the time of this particular exercise until the full time is possible without fatigue. The second exercise is a continuation of this flexion of the toes on the sole of the foot, plus inversion of the foot to the extreme, bringing into the action the tibialis anticus muscle. At the extreme point of inversion, a strong hard pull is made, then the foot is allowed to resume its usual position without any muscular effort.

At the beginning fifteen or twenty minutes is sufficient for the entire routine of exercise. Later, after the muscles become stronger, a full half hour may be devoted to this without marked fatigue. The plan as outlined above should be carried out each morning under the supervision of a man trained along this line. The patients should be instructed to repeat this performance each night on retiring, devoting one-half the time consumed in the morning.

Many of the cases with marked eversion of the foot walk with the toes turned out. The men are instructed to walk with the toes turned in at all exercises and at all other times during the day. We believe that this latter advice relative to walking is vitally important in the general handling and treatment of these cases.

The plan of treatment here outlined is so simple and the results have been so good, that it would seem that it could be adopted with profit by the physical directors in our public schools and in gymnasiums. Without doubt such a plan of treatment will relieve many of the aches and pains from which people suffer, and save them from falling into the hands of charlatans who prescribe costly systems of treatment, without any knowledge of the cause of the trouble and without curing the condition.—*Major Brewer, M.R.C., in "Health News," December, 1917.*

Dominion Medical Monthly

And Ontario Medical Journal

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No. 6

COMMENT FROM MONTH TO MONTH

The Value of a Department of Health to any community lies in its efficiency. It is most likely now a truism to say that "the people can have all the health they want if they are willing to pay for it." If they are not willing to pay for it, then they cannot grumble if the best results are not obtained. In this matter the public need more enlightenment, but the way to enlighten them is not to eliminate first the medium of communication—bulletins.

Public health departments were going forward very well indeed before the war; since that they have endeavored to "carry on" in spite of changed conditions. To them war has brought added burdens, just as it has brought added burdens to other departments, businesses, commercial enterprises, etc. It is quite true that in some walks of life there have come increased revenues, but in others there have been steadily vanishing incomes. Added burdens in municipal control necessitate a looking around to see where retrenchment can be practised. It is possible the overburdened taxpayer, calm, considerate, and inured as he may be, may at times think selfishly that he has gone the limit of his powers financially in the way of securing the greatest safety from ill-health. He may not be sufficiently educated yet to the fact that, when so many are dying for righteousness and civilization,

there is all the more necessity to conserve the living to replenish the State. Public health sentiment has been a product of slow growth, but in the past few years it has flourished like a green bay tree. It might advantageously, for two or three years, be allowed to rest upon its laurels, rather than create a sentiment which would be antagonistic to further advancement for a whole decade or more.

Better Half a Loaf Than No Bread. The taxpayer should not be irritated too much by progressive health work at the present time, and there has been evidence that he is irritated and worried over it. Rather should he be nursed by the assurance that health work is now on a good substantial plane. There is still much to do. If it is not the time for too much progression, then it is assuredly not the time for retrenchment by tearing down the efficient structure which has been builded. It should remain intact as it is.

At the present time New York and Toronto have been in the public eye with regard to their departments of health. New York does not concern us except in a general way. The example might work disastrously to public health the North American continent over. Toronto does concern the Canadian people most vitally. There has been no better administered health department in Canada, perhaps not even in the United States. Can we expect the best efficiency in that department if it is to be bull-baited and bull-dosed? If an alderman or controller receives complaints from a citizen, then it is the duty of that alderman or controller to lay that complaint first before the actual head of the department. If justice is not meted out, recourse should be had to the board of health. It would be far better to have the final court the board of health of the province, rather than the board of control, or the aldermanic body.

How anomalous it seems that an important department like a department of health should have a board when other departments have no board! Some years ago it was pointed out in these pages that for a large city like Toronto the board of health should be constituted of prominent citizens known to have an abiding interest and information in public health matters, rather than be composed of aldermen, here to-day and gone to-morrow. Does any sane citizen think that there is any alderman who can grasp the broad and vital subject of public health in a year or two? Even the chairman thereof is a bird of passage.

Recently, Montreal, which it is said has been notoriously badly administered in the last few years, undertook a survey of its various municipal departments by an expert in municipal matters. The board of health of that city was a thing of beauty and a joy forever—it scarcely ever met. The expert recommended for Montreal the very similar plan which was recommended in these pages some years ago for Toronto, namely a board of health constituted of prominent citizens, or a commission of public health. Surely aldermen, at least, must see that in the varying chances in elections the present plan of a board of health for a big community is as useful as a fifth wheel. Fancy a speaker in council turning to two members of the board of health and asking some question about the working of the department of health, and both sitting silent and dumb! Even the chairman might not be able to answer. Clearly, the man to ask questions of is the head of the department. Why, even, always expect him to be able to answer any question of public health right off the bat? Does the solicitor never take any question under his advisement?

One thing stands out clearly in the whole question of public health administration: The medical officer of health must be trusted to do his duty.

McGill University will now admit women to the study of medicine and dentistry. Women students must have taken a degree in Arts at some recognized university, or must take the double course of B.A. and M.D., or B.Sc. and M.D., or have taken the first and second years in Arts at McGill.

Lieut.-Colonel J. N. Gunn, C.A.M.C., who practised the specialty of eye surgery in Calgary before enlisting in war service, is in Toronto visiting his parents. Dr. Gunn was in command of No. 8 Field Ambulance, Third Division C.E.F., until March of the present year. He says that Canadians at home have every reason to be proud of the men who did so much to ease the sufferings of those struck down during the battles in which the Canadian forces have been engaged. He has also spoken of the high tribute paid by General Porter, Director of the British Medical Forces in France, of the splendid work of the C.A.M.C., especially after the battle of Passchendaele. Colonel Gunn is home on two months' leave of absence recovering from an attack of trench fever.

News Items

Dr. F. C. Harrison, Toronto, has been attached to the R.F.C. in Toronto as assistant medical officer.

The Academy of Medicine, Toronto, has elected Colonel Primrose, president, and Lt.-Colonel Edmund E. King, vice-president.

Dr. Fletcher, Johns Hopkins Medical School, who has been chief in medicine at the Orpington Hospital, England, has returned to Baltimore.

Colonel George E. Armstrong, consultant in surgery to the C.E.F. in England, is returning to Montreal, and is said to be slated for an important post in Canada.

Colonel Herbert A. Bruce, Toronto, who has had important duties in France for the past two years, is said to be returning for an important conference of army surgeons in Chicago.

The Toronto General Hospital has military wards and now has in residence therein some two hundred soldiers. Colonel Primrose is in charge, and assisting him are Captains George Ewart Wilson and Gaby, Toronto.

Dr. Alexander McPhedran, Professor of Medicine in the University of Toronto, has been elected President of the American Association of Physicians; and Dr. Charles Martin, Montreal, a member of the council of that body.

Dr. Charles K. Clarke, Toronto, Dean of the Faculty of Medicine, University of Toronto, has been elected medical director of the new Canadian National Committee for Mental Hygiene, and Dr. Clarence M. Hineks, Toronto, has been elected secretary and assistant medical director.

Major H. H. Alger, Stirling, Ont., who went overseas as lieutenant-colonel, and as medical officer of the 80th Battalion served in camps in England, and later in France, when that battalion was broken up, has recently received the appointment of Assistant Inspector of Drafts on the headquarters staff for the Shorncliffe area.

Lieut.-Colonel J. J. Fraser, Walkerton, Ontario, went overseas early in the war with the rank of Captain, has received promotion since then to the rank of Lieut.-Colonel, received the D.S.O., and was thrice mentioned in despatches. He was C.O. of No. 2 Field Ambulance. He has returned to Canada on leave of absence.

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Reviews

The Immediate Care of the Injured. By ALBERT S. MORROW, A.B., M.D., Clinical Professor of Surgery in the New York Polyclinic. Second edition, thoroughly revised. Octavo of 356 pages with 242 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$2.75 net.

Nothing so tries the skill and ability of most general practitioners as emergency work, especially the beginner. For that reason this book should prove one of great value to the younger man and as well to the military soldier. Medical students in their final years should possess themselves of a copy of this excellent book.

Infant Feeding. By CLIFFORD G. GRULEE, A.M., M.D., Assistant Professor of Pediatrics at Rush Medical College; Attending Pediatrician to Presbyterian Hospital, Chicago. Third edition, thoroughly revised. Octavo of 326 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$3.25 net.

Success in pediatrics leads to successful family practice; and dietetics has long been recognized as a particular in leading up to that success. This is the third revision and that shows that the book has met with considerable success and that it has been brought up to the requirements of present-day feeding of infants. It is of special importance now that the food problem is so pronounced, and diets, ordinary and otherwise, of the utmost significance.

The Food Problem. By VERNON KELLOGG, of the U. S. Food Administration, and ALONZO E. TAYLOR, of the same body. Preface by Herbert Hoover. New York and Toronto: The Macmillan Company.

The food problem at the present time is one of the vital aspects of war. No better men could have presented the subject. Too much of it cannot be brought to the attention of the public. The medical profession can help materially in the food campaign, and they can qualify themselves to speak with authority by familiarity with all this book contains.



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THE RECOVERY FROM LA GRIPPE.—Since the first appearance upon our shores of that unwelcome infectious disease known as La Grippe, the medical journals have been filled with articles advocating different methods of treating the attack itself and its various complications. But little attention, however, has been paid to the important question of how to best treat the convalescent subject. Among all of the acute infections there is probably none that is as likely to leave the patient quite as thoroughly devitalized and generally prostrated, as does a sharp attack of La Grippe. For some reason the degree of prostration from grippal infection appears to be entirely out of proportion to the severity of the attack itself. This peculiarity renders it advisable and usually necessary to strengthen and support the general vitality of the patient during the period of convalescence. Complete rest, nourishing food, plenty of fresh air, and stimulation according to indications are, of course, distinctly important measures. At the same time tonic and hematinic medication should not be neglected. Probably the most generally acceptable and efficient general tonic and hemie reconstituent for such patients is Pepto-Mangan (Gude), a bland, non-irritant and promptly absorbable combination of the organic peptonates of iron and manganese. This efficient blood-builder and reconstructive does not disturb digestion nor induce constipation, and is readily taken by patients of all ages.

A USEFUL LOCAL ANESTHETIC.—It is doubtful if any new remedial agent in many years has met with a readier acceptance by Canadian physicians and surgeons than is being accorded to Apothesine, the synthetic local anesthetic recently announced by Parke, Davis & Co. The prompt appreciation which has marked the advent of this new product is gratifying for two reasons: Apothesine is an efficient and broadly useful local anesthetic; it is a fruit of American enterprise and research.

Apothesine is described as the hydrochloride of gammadiethyl-amino-propyl cinnamate. It occurs in the form of small snow-white crystals, having a melting point of 137° C. It is readily soluble in alcohol, slightly soluble in acetone and ether, and very



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H. T. No. 218.—Apothesine-Adrenalin (Dental).

Parke, Davis & Co. announce that they will be pleased to send literature on Apotheresine to any physician or surgeon who is interested in the product.

Medical Council of Canada

June Examinations, 1918

The examinations of the Medical Council of Canada will be held in Toronto and Winnipeg coincidentally on June 18th, 1918.

Forms of certificate may be obtained from the Registrar at any time.

Registration for the June examination will close promptly at the Registrar's office in Ottawa on May 21st, 1918.

R. W. POWELL, M.D., Registrar, 180 Cooper St., Ottawa, Ont.

Medical Monthly

And Ontario Medical Journal

Volume 51

TORONTO, JULY, 1918

Number 1

Apothesine

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LITERATURE ON APPLICATION.

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Dominion Medical Monthly

And Ontario Medical Journal

Vol. LI.

TORONTO, JULY, 1918

No. 1

Original Articles

THE IMPORTANCE OF THE WORKINGMAN'S HAND AND ITS TREATMENT WHEN INVOLVED IN SEPSIS *

By EDWARD H. RISLEY, M.D., F.A.C.S., BOSTON.

Assistant Surgeon to Out-Patients, Massachusetts General Hospital; Surgeon to Collis P. Huntington Memorial Hospital; Assistant in Anatomy, Assistant in Surgery, Harvard Medical School.

This paper is a plea for greater detail in the consideration and treatment of the septic hand. How many of us ever stop to consider the wonder of the human hand? In this era of rapid advance in the manufacture of most delicate instruments of precision, what wonderful mechanical device, what most delicate instrument, what part even of the human body is more wonderful in its delicate, intricate yet powerful construction than the human hand? The strength in its slender tendons, its powerful muscles, the multitudes of delicate movements possible, its flexibility, its adaptability and its acute sensibility are things of wonder and admiration.

And yet how quickly, how easily, how utterly is this beautiful piece of machinery ruined by the introduction of a few germs into its mechanism.

How necessary is it that we try to preserve this wonderful machine, so indispensable to all productive labor, to all economic advance, to all progress in science, and to the enjoyment as well as the maintenance of life itself! With full appreciation of the profound importance of the hand, Kanavel has placed before us his splendid treatise on the minute anatomy of the hand and its treatment when involved in sepsis.

For a considerable number of years we have been greatly interested in the treatment of septic hands, and before Kanavel's work appeared we worked hard but perhaps not always entirely

* Interstate Medicine.

intelligently over these cases. But now, armed with the detailed anatomical knowledge of the ramifications of the various bursae and the routes of travel of infection through the many spaces of the hand we feel we should produce results far better than in the past.

Clinically these cases need intensive study and the greatest attention to the minutia of treatment to produce the best results. No part of his body is of greater importance to the artisan of any class than his hand. What can he do without it? Practically nothing! And he soon becomes a dependent on relatives or on the State and an economic loss in far greater measure than those suffering from almost any other disease or accident. We ask the question, "Does the septic hand get the painstaking intelligent treatment that its economic value demands?" We believe it does not, and we think the study here presented will show a few reasons why this is so.

We have taken 77 consecutive cases, of such severity as to demand house treatment, and made from them a detailed clinical study, in order to bring out and emphasize points in the treatment of these cases which we believe are too often neglected and which we feel need further emphasis.

The problem presents the following phases:

1. Treatment of the patient from the point of view of general infection or its prevention.
2. The local treatment of the locally infected area.
3. The type of operation.
4. After treatment (kind of dressings), passive motion and massage, etc.
5. Plastic operations to overcome unavoidable deformities.

From this study we are able to produce figures to back up the contention that we have been trying to emphasize for several years, namely, that *every* case of infection of the hand should, when first seen, be treated in bed as a house case and never as an ambulatory case.

Let us follow a typical septic hand as seen in our out-patient departments. The hard-working, poorly nourished, probably alcoholic laboring man with dirty hands and soiled clothing, gets an infection of a finger—trivial at first sight. He is seen, told to soak and poultice his hand and to return in twenty-four hours. The soak is given, the poultice applied—and possibly a splint—the man leaves the hospital to return home: before he gets there the dressing is cold and uncomfortable, he probably stops on the way and takes anywhere from one to six drinks, finally goes

home, does not do as told, or stays in the bar or on the street talking with his pals till late in the day. When he returns to you the next day or more likely the day after, the infection has advanced with rapid strides and within another twenty-four hours is beyond the point of localization. If out-patient treatment continues, many incisions under unfavorable circumstances are required to control finally the process, if this is possible at all.

Or he may drift from one inexperienced medical man to another, each making a small "medical incision" or "cutting to the bone," and so the thing goes on from bad to worse until tendon sheaths are infected, and then follows the long and painful, disabling process of sloughing tendons, contractures, the crippled hand or finger-amputations—weeks, months, out of work, and partial or total disability probably to follow. Such is the too frequent story of our out-patient cases even with the best treatment we can give them there.

Contrast the case handled by the man who insists on house treatment from the very start. The tired, underfed, alcoholic laborer has his much needed soaks and poultices regularly, he is made clean, put to bed, kept quiet and comfortable, has nourishing food in plenty, frequent inspection of his hand, abstinence from alcohol and proper, intelligent incision in the proper place at the first indication that it is needed. Meddlesome surgery is not only avoided but prevented, tendon sheaths are not unnecessarily opened, no "cutting to the bone" is done, and in the vast majority of cases the patient is able to leave the hospital in a few days with the process entirely quieted down, with the necessity probably for but one intelligent incision, and much improved in general condition.

It is possible to substantiate this contention in regard to house treatment by actual figures, as shown in our series of cases. We found that of sixty cases receiving house treatment at the onset only ten required more than one operation to clear up the process. Of the ten cases requiring more than one operative interference all were of a more complicated type in that they had had some kind of operative procedure before entrance to the hospital and were not strictly in the class we are describing.

Contrast these figures with a series of forty-seven out-patient cases in which, even under the best and most ideal out-patient conditions and under the supervision of one man especially concerned with these cases, all but six had to have more than one operation to get ahead of and control the process. These cases were not operated on or supervised by the house officer, but were

under the direct care of the visiting man especially assigned to care for them and received the best and most detailed care that could be given to an out-patient case.

We believe that such figures as these should receive careful consideration.

Just let us stop for a moment and think what it means to the laboring man or mechanic whose whole livelihood depends on his fingers and hands, to be laid up about a week in a hospital with an expense of from fifteen to twenty-five dollars and then to spend a period of one to two weeks longer before he can get back to work, in contrast to the man who drags along as an out-patient case, losing his work, spending days of suffering and progressing sepsis, and then perhaps finally having to be sent to the hospital with severe sepsis involving a period of weeks or months for recovery and perhaps after deforming or disabling operative procedures made in the attempt, often too late, to get ahead of an initially improperly treated, trivial infection. The contrast is a marked one and not favorable to the ambulatory case. It is furthermore an altogether too common occurrence, as the author knows from considerable experience with the out-patient type of case.

It is in no man's power to accurately prognosticate any sepsis when first seen. The most trivial cases at the onset often become the gravest. Should we not make it a hard and fast rule that *every* septic hand or finger patient be put immediately to bed and carefully watched rather than to run the risk of progressive sepsis, multiple incisions and the aftermath of contractures and disability in a member which is so absolutely indispensable to making a livelihood?

From an economic point of view this is the best surgery, from a humanitarian point of view it is the best treatment, and from a surgical point of view it is the best judgment. No one heeding the contrast in these two widely different methods of treatment can for a moment deny the logic of the more careful method.

We write thus at length on this particular phase of the subject because we believe that the importance of bed treatment of these cases has hitherto never been fully appreciated, and rarely made a practice except with a very few men.

General systemic treatment has its important place also. This is mainly by early and thorough evacuation of the bowels, the forcing of large amounts of fluids, particularly water, the avoidance of alcohol, the eating of nourishing food and avoidance

of any kind of fatigue. These are commonplace enough things, but none the less of importance in turning the scale from severe to less severe degrees of infection; the whole point being not to omit any one little detail of treatment which might help in any small way in these most vitally important cases.

We have approached this subject with the economic point of view largely in mind, because we believe that economic efficiency is the final aim of our treatment. If we bear this constantly in mind, even from the first moment of seeing our patient, while dressing his hand, while making our incisions, and in all our after-care, we will give each individual hand better, more detailed, and more intelligent treatment.

In this connection it is a matter of especial interest to know which hand is the more liable to infection, whether the almost constantly used right or the less frequently employed left. We found the right involved thirty-three times and the left forty-four times. This proportion in favor of the left we hardly expected to find, the reason probably being that the left hand being the holding hand is more often injured by things held in the right, active hand.

As to the local treatment of the locally infected area we have nothing new to advance. Hot soaks and poultices with or without Bier treatment or Gamgee dressings are the routine and undoubtedly the logical routine in every case pending localization or indications for incision. The value of passive congestion in treatment we will not discuss, as the evidence from many clinics is not sufficient either to condemn or approve its employment. Personally we rarely employ it, but are content with hot soaks, poultices, and rest in bed before incision. After incision we rarely employ moist dressings except in certain cases in which it is necessary to further attempt to localize the process.

There is one detail of treatment, however, in regard to dressings, which we wish to insist is most important as a prophylactic against future deformity and stiff joints, and that is, the immediate use of the splint in every case no matter how trivial at first. Absolute immobilization of the part in a comfortable position is essential. The hand should rest on the splint in such a way that the fingers are bent only by the presence of the padding or dressing underneath them, and in this way they are very slightly, almost not at all flexed, and are comfortable. Splints to the whole hand are urged in all beginning infections of even the fingers, so important we do consider the role of immobilization in the treatment.

Dorsal Edema.—There is a physical sign present in a large percentage of cases which in the past has not been thoroughly understood and which has often led to harmful and unnecessary operative procedures. This is the more or less marked edema of the dorsum of the hand which we found present in forty-five out of seventy-seven cases. The inexperienced operator will often be misled by this sign and open here first, when the septic focus is in reality on the palmar surface of the fingers or hand. Careful palpation of the whole hand—not with the finger and thumb in bimanual grasp, but with a smaller feeling surface, such as the very tip end of the forefinger or the point of a hemostat—will reveal the smallest localized area under tension and will serve to eliminate the dorsum in the great majority of cases as a focus of pus. Attention to this point in a large number of cases has demonstrated the rare occurrence of dorsal edema as a sign of early pus in the dorsum, but it is a very common accompaniment of any process in the lateral or palmar aspects of the hand.

Lymphangitis.—Whereas the above sign is common in the greater number of septic hands, the more commonly thought of sign, namely, lymphangitis, has been found in a rather surprisingly small number of cases: only fifteen out of seventy-seven. This is explained largely on the assumption that cases are rarely seen until three to five days have elapsed since the onset of the infection and the probabilities are that by this time the lymphangitis, which was probably present in a large per cent. of the cases in the first three or four days, has disappeared. A careful inspection of forearms at the onset of sepsis we feel sure would show the presence of some slight degree of lymphatic involvement in all but a few cases.

Glandular Involvement.—That the lymphatics generally become involved even without visible evidence is shown by the fact that distinct glandular enlargement and tenderness was present in one-third of all cases seen and probably runs to a much higher percentage.

White Counts.—With the onset of any degree of sepsis we expect an increase in the white blood count. This alone, however, is not a reliable guide to the seriousness of the infection, but rather serves as an indicator of resistance and attempts at the establishment of immunity. The count in our series ranged from 12,000 to 38,800, or an average of 25,400. In only two cases—streptococcic cases—was a high white count the accompaniment of fatal sepsis. We feel that the white count is a

factor of but very little importance in judging the severity of these cases.

Type of Infection.—Reliable information is not at hand in regard to the type of organism most common. It is supposedly a staphylococcus. Twelve cultured cases showed seven staphylococcus and five streptococcus. Only the very severe cases were cultured, so that these figures are not conclusive. It is probably true that the staphylococcus is by far the most common cause of hand infection.

Influence of Previous Incisions.—We have been interested in trying to determine if possible what influence previous incisions by local physicians had on the course of the cases. In compound fracture it is definitely proven that meddlesome surgery by a man not prepared to carry through the treatment to a finish is productive of poor results, but from a study of this series no such definite conclusion could be reached. Except in cases in which the so-called "cutting to the bone" is done, the primary incision by the local physician seems to do good rather than harm in that, in many cases, tension is relieved, even if pus is not obtained, and a certain amount of drainage is established.

It is hoped that Kanavel's most excellent work may find its way into every practitioner's hands and that more intelligent incisions may be employed.

Type of Operation.—Improvement in our own results has been noticeable, especially in out-patient work, since the employment of lateral incisions on the fingers, thenar and hypothenar eminences, wrist and forearm, whenever the pus was not definitely localized in some midspace of palm or dorsum. In borderline cases, when the localization of the pus is not definite, the lateral exploration is much more logical and satisfactory and the assurance of not unnecessarily opening tendon sheaths greater. Small incisions are practically never indicated. An incision less than one inch, and, generally, one of less than two inches is evidence of timid surgery. There is far less danger of infecting healthy skin by a large incision than there is of not reaching the focus of pus and not seeing what structures we are cutting by the employing a small incision.

Necessity for Tourniquet.—The tourniquet put on, not close to the area of infection, but as far away as possible, just under the axilla, if there is any lymphangitis at all, or at the bend of the elbow, should be employed in every case except of the most superficial character or when well localized and walled off abscesses are present. It is essential that one see what structures

he is cutting. The presence of edema which often leads to the obscure focus of pus, unnecessary cutting of blood and nerve supply, is avoided and above all tendon sheaths are not needlessly opened or torn, while the infected sheath can be easily recognized and the extent of the process determined and opened under the guidance of the eye. In this way we do clear, clean-cut surgery on dirty cases, and, when our operation is finished, we know the extent of the process, we can intelligently place our drains and are prepared to meet any further extension of the process that might supervene by the exact knowledge of where the doubtful looking areas were located and of exactly what we have so far done. How infinitely much better this is than to be obliged to reopen a septic hand which has been incised under any less careful methods.

Kind of Drainage.—Wet or Dry Dressings.—The importance of the right kind of drainage to be employed should not be overlooked. More important than the drainage, of course, is the thorough opening up of the septic area and the exposure of all pockets. Where this is thoroughly done under the guidance of the eye in a dry field, in the large majority of cases the use of rubber tissue drainage and a dry dressing is efficient and good treatment. The small boric wick is also of value in this type of case. It is only when the operator is not sure that he has reached the limit of the septic area that the rubber tube, wide, open packing, and the moist dressing are indicated. In the first type the poultice is no longer needed to aid in localizing the infection. In the second type, its use, together with passive hyperemia, is often of greatest service in favoring more efficient drainage and in more quickly localizing the septic process.

In our series, rubber tissue was used as a drain in twenty-three out of seventy-seven cases, dry dressings with or without rubber tissue in twenty-one, poultices in twenty-one, dry gauze as a drain in eighteen, boric wicks in ten, and rubber tubes in two. We are personally much in favor of the small (in caliber) boric wick as a means of drainage. It is easy to remove because it does not adhere to the wound edge and does not act as a plug to dam back discharge, as is often the case with the hastily or improperly inserted dry gauze packs or wick. It is a much safer form of drainage in the hands of the inexperienced operator than either dry gauze which may plug, or the rubber tissue which may not leave the wound open wide enough to secure efficient drainage.

Zander Methods.—Closely following on intelligent incision, adequate drainage and the subsidence of the infection process, should be the institution of passive motion and massage. This

should be started in the non-affected part of the hand at the very beginning of the subsidence of temperature, and should be extended to the involved areas as quickly as disappearance of tenderness and swelling will permit. By this means many days will be cut off from the period of disability and a vastly larger per cent. of early useful fingers and hands will be produced. Too much stress cannot be laid on this important adjunct to our treatment. We wish to especially emphasize the importance of early, gentle, passive motion and massage to the uninvolved part of the hand and particularly the wrist. If this is persisted in from the very start the whole of this area is ready for use by the time the wound is healed and active Zander methods are ready to be started on the affected parts, thus shortening by a considerable number of days the time necessary to properly limber up the whole hand. The hand, of course, should always be returned to its splint after the daily Zander treatment until the danger of contracting scar and tendons is over. Our hospital records show infinitely better results since the early institution of this treatment was recognized. Zander treatment helps in another way also. It enables us to make an earlier prognosis of the ultimate result, and joints that do not limber up within four to eight weeks of persistent Zander treatment are very liable to fall into the group of unavoidably deformed hands and as such are watched carefully for the earliest opportunity to do some plastic operation or amputation of permanently stiff fingers. By thus carefully following up the Zander part of our treatment we can again affect favorably the economic end result, by earlier plastic surgery and hence earlier return to work. These may all seem to be small points which we are making, but they are extremely important parts of a detailed system of treatment in these cases which we consider of such vital importance. Tendon involvement is unfortunately too common a sequence in sepsis of the fingers and hand. A careful study of the treatment of these hands previous to admission to the hospital leads one to believe that delayed incisions, ineffectual incision and the so-called "cutting to the bone" are responsible for tendon sheath infection in most cases. Our seventy-seven cases showed no involvement in thirty-eight, definite involvement in twenty-six, uncertainty as to involvement in five and not stated in eight. Thus a trifle over one-third of a large variety of septic hands showed tendon sheath involvement. In cases with definite involvement the results were bad, *i.e.*, stiff fingers in spite of Zander treatment in fifteen, good in only six and unknown in five. Thus the importance again of carrying out all the minute

details of treatment, in order to avoid, if possible, tendon sheath infection, is emphasized.

When we analyze the results in this series of hospital cases, operated on by many surgeons and house officers, we find the following results: Out of seventy-seven hands we find nine which obtained a perfect result, nineteen in which the result is stated as good and three set down as fair, implying some slight amount of deformity or disability, but not enough to prevent useful work; nine poor results because of amputation of one or more fingers and seven because of contractures and stiff joints. The end results in twenty-nine cases are not definitely known, *i.e.*, the patients have not been personally seen and inspected, but from an analysis of the history, operation and last notes it seems probable that nine of these were good, four were poor and sixteen remain entirely unknown. Thus forty out of seventy-seven cases, or one-half, had what might be called a good result, while about one-third of the cases had a probable poor result. There were four deaths from sepsis and one from delirium tremens. We believe these results are very good considering the number of men operating and the conditions of previous treatment, but we also believe that if these cases were under the supervision of one man especially assigned to treat such cases in the detailed manner outlined, the results would be far superior and the time away from work much reduced, hence the economic result better.

Profound sepsis resulting in death, in spite of every attempt to limit the process, occurs with a certain regularity in every decade or series of cases. Just what factors besides possible inadequate first treatment bring about these results it is not possible to determine. It rarely occurs in robust subjects, but usually in those showing the signs of physical or mental fatigue, or concomitant disease. We were interested to look up the deaths from profound sepsis in several periods. We found ten such deaths in two hundred cases in the years 1892-1906; eleven in ninety cases, 1906-1911; and seven in 137 cases, 1911-1916. Such variations in percentage seem more likely due to the nature of the infection and the previous condition of the patient than to fault in a pretty well established routine of treatment.

SUMMARY.

The points which the author wishes especially to emphasize in presenting this paper are the following:

1. A vivid realization of the wonderful mechanism of the

human hand and the profound economic destruction produced in it by the element of infection.

2. The great importance of considering the septic hand from an economic point of view from the very start of the infection till the man is back at work again.

3. The great importance of bed treatment for every case of septic hand or hand infection. The reduction in the number of secondary operations necessary when this method is carried out and the longer course of treatment necessary when under even the most ideal out-patient or ambulatory treatment.

4. The general treatment should not be neglected.

5. Splints should always be employed at the very onset of every finger or hand infection.

6. Edema of the dorsum is a very common sign, but more often is an accompaniment of palmar pus than an indicator of a dorsal focus.

7. Some degree of lymphangitis is found present in practically every case if looked for early enough.

8. The white blood count is not a reliable guide as to the severity of the infection. A high count may mean localized pus or lack of resistance.

9. Of the two forms of inefficient surgery "cutting to the bone" is far more dangerous than the so-called medical incision, which often relieves tension and produces drainage enough to be helpful rather than otherwise.

10. Lateral incisions are of greatest value and less liable to open up uninfected tendon sheaths.

11. The high tourniquet producing a dry operative field is of utmost importance. Careful dissection under guidance of the eye is essential to success.

12. In the large percentage of cases the borie wick or rubber tissue with dry dressings is the best form of after treatment where the process is localized. Wet dressings help to localize infections not entirely in such condition at time of operation.

13. The early establishment of passive motion and massage especially to the unaffected parts of the hand is of utmost importance in shortening the period of disability.

14. Tendon involvement is by proper care preventable and is a far too common occurrence.

15. Early plastic operations or amputations are desirable after a thorough preparatory course by Zander treatment.

Reviews

Medical Electricity. A Practical Handbook for Students and Practitioners. By H. LEWIS JONES, M.A., M.D., F.R.C.P., Seventh edition. Revised and edited by Lullum Wood Bathurst, M.D. With illustrations. Price, 15 shillings. London: H. K. Lewis & Co., Ltd., 136 Gower Street, W.C., England.

The late Dr. Lewis Jones was a pioneer and scientific worker in this branch of medicine, and the reviser has tried to bring the book up to date in this new edition. Beginners will find it a good handbook.

Modern Operative Bone Surgery. With special reference to the Treatment of Fractures. By CHARLES GEORGE GEIGER, M.D. With 120 illustrations. Philadelphia: F. A. Davis Company.

This is a book on Plastic Bone Surgery, and will be found suitable for the surgeon. The röntgenograms were selected from the extensive collection of the late John B. Murphy.

The Medical Clinics of North America. Volume 1, Number 5 (The Chicago Number, March, 1918). Octavo of 241 pages. 35 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Published bi-monthly. Price per year: Paper, \$10; cloth, \$14.

We commend these volumes to medical men. They will be found of great practical value. Our country readers should especially value them, as they cannot expect to keep in touch with medical matters like the more favored circulating around the large hospitals.

The Surgical Clinics of Chicago. Volume II, Number II (April, 1918). Octavo of 208 pages, 79 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Published bi-monthly. Price per year: Paper, \$10; cloth, \$14.

Surgeons will find this a good and interesting volume, from which they will be sure to reap some valuable knowledge.

Principles of Surgical Nursing. A Guide to Modern Surgical Technic. By FREDERICK C. WARNSHUIS, M.D., F.A.C.S., Visiting Surgeon, Butterworth Hospital, Grand Rapids, Michigan; Chief Surgeon Pere Marquette Railway. Octavo of 277 pages with 255 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$2.50 net. The J. F. Hartz Co., Ltd., 24-26 Hayter Street, City, sole Canadian Agents.

This book is distinguished by its many illustrations, all of which are exceedingly good. There are 225 of them—and the total number of pages 277, nine being index. It will be of great interest and help to surgeons.

The Nervous System and Its Conservation. By PERCY G. STILES, Assistant Professor of Physiology in Harvard University; Instructor in Boston School of Physical Education. 12mo. of 240 pages, illustrated. Philadelphia and London: W. B. Saunders Co., 1917. Cloth, \$1.50 net. The J. F. Hartz Co., Ltd., 24-26 Hayter Street, City, sole Canadian Agents.

Now that Mental Hygiene is becoming a practical subject, the fact that it has been enlarged upon in the present edition will make this volume especially valuable. Medical practitioners and students will find it of much value as a concise treatise upon the Nervous System and its Conservation.

Principles of Hygiene: For Students, Physicians, and Health Officers. By D. H. BERGEY, M.D., Assistant Professor of Hygiene and Bacteriology, University of Pennsylvania. Sixth edition, thoroughly revised. Octavo of 543 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$3.50 net. The J. F. Hartz Co., Ltd., 24-26 Hayter Street, City, sole Canadian Agents.

So rapidly has Hygiene, Sanitation and Public Health advanced in recent years that it is necessary for practitioners, students, and medical officers of health to keep abreast of those advances. This sixth edition speaks well for the popularity of this book.

The Practice of Pediatrics. By CHARLES GILMORE KERLEY, M.D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital. Second edition, revised and reset. Octavo of 913 pages, 136 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$6.50 net.

This book is written by a practitioner who is said to have one of the largest practices in diseases of children in America. He has had, therefore, much experience from which to draw. The first volume appeared in 1914. There are twenty-five new articles in the second edition. Several chapters largely rewritten, while a great deal of old material has been removed. It will be found a very serviceable book to practitioner and student.

The Elements of the Science of Nutrition. By GRAHAM LUSK, Ph.D., Sc.D., F.R.S. (Edin.), Professor of Physiology at Cornell Medical School, New York. Third edition, reset. Octavo of 641 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$4.50 net. The Canadian Agents, J. F. Hartz Co., Ltd., 24-26 Hayter Street, City.

Medical men have ever found this an excellent authority on the subject of Nutrition. In this edition, the third in ten years, the chapters remain practically unchanged, but the rest of the book shows many additions of importance. There is a revision of facts and theories of metabolism. Much study has, in recent years, been devoted to the subjects incorporated in this book, so that medical men may here find the newest and best of recent investigation.

The Systematic Treatment of Gonorrhea. By N. P. L. LUMB, Temp. Capt. R.A.M.C. Price 4s. 6d. net. London, England: H. K. Lewis Co., Ltd.

Are we coming to the day when the big, bulky medical book will be seen no more? There seems to be a disposition to present individual diseases in monograph form, or in one book. It is certainly more convenient form to read and study them. This is a small volume setting forth a description of the methods which have been found valuable in different treatment centres.

Dominion Medical Monthly

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No. 1

COMMENT FROM MONTH TO MONTH

Inoculation Against Typhoid, and Vaccination Against Smallpox have proved themselves. In military circles is it better to inoculate first and vaccinate second? Young men coming into the City of Toronto, for instance, we are told, generally are inoculated first, and sometimes, several weeks go by before they are vaccinated. Now, there is not so much risk to run as regards typhoid, for typhoid is a negligible factor in Toronto; and so may be smallpox. There is this, however, that for some units, recruits are gathered from all over the Dominion and come from many centres, in some of which smallpox may be prevalent. It would seem better practice, therefore, to vaccinate first, and not allow these young men to intermingle amongst themselves and the general public. If there should ever be an outbreak of smallpox in military quarters or camps, and the knowledge spread that a month or more is allowed to lapse before vaccination is practised, it might create a situation which the sanitary authorities might find difficult to explain.

Insanitary (L. *in-neg.* plus *sanus*, sound.) Unhealthy, insalubrious, injurious to health, not sanitary. (Stedman.)

Insanitary (*in*, not; *sanitas*, health). Not sanitary; not in a proper condition as respects the preservation of health. (Gould.)

Insanitary. Not in good sanitary condition. (Dorland.)

Insanitary. Not in good sanitary condition. (Lippincott.)

Insanitary, *adj.* Not sanitary; *n.*—Insanitation, want of proper sanitary arrangements. (Chamber's Twentieth Century Dictionary.)

Insanitary, *a.* Not sanitary; injurious to health; unhealthy; as, insanitary drainage. (Webster's New International Dictionary.)

"Unsanitary" is not to be found in even one of these dictionaries. We are to presume, therefore, that there is no such word as "Unsanitary." Why, then, do medical officers of health persist in its usage?

Medical Education and Practice in Ontario, as set out in the report of Mr. Justice Hodgins, should receive careful consideration and study from not only the individual medical man but from medical societies throughout the Province. Possibly, so far, no medical man has given more study and consideration to all the subjects concerned by this new Act than has Dr. John Ferguson, Toronto, and to his digest of the report we refer our readers. It will be found in August issue. Should any medical man have anything particular to say thereupon, or about any aspect of the proposed Act, we shall be glad to publish his views in future issues. In no better way could the matter be brought to the attention of the profession throughout the Province than by individual communications to the medical press. There should be wide expression of opinion.

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News Items

Dr. Ogden, Toronto, is moving from Avenue Road to 9 Spadina Road.

Halifax, N.S., wants a medical officer of health at a salary of \$2,500—not enough.

Lieut.-Colonel R. M. Simpson, Winnipeg, Man., has been advanced to a Colonelcy.

Professor John Cameron, D.Sc., has been re-elected President of the Halifax Medical Society.

Dr. Helen MacMurehy, Toronto, has been elected President of the Woman's Canadian Club, Toronto.

Dr. T. E. Case, Dungannon, Ontario, was elected by acclamation recently, a member of the Ontario Legislature.

The Winnipeg General Hospital is advertising for a medical superintendent—a medical man with wide experience.

Lieut.-Colonel H. R. Casgrain, Windsor, Ont., who went overseas early in the war, is still in command of No. 8 Canadian Hospital at St. Cloud, France.

The Hospital for Sick Children, Toronto, has lost its leading benefactor in the person of Mr. John Ross Robertson, who recently died in this city.

Dr. Charles J. Hastings, M.O.H., Toronto, is President of the American Public Health Association, which will meet in Chicago, Ill., October 14th to 17th.

Colonel J. George Adami, Montreal, has completed the first volume of his history of the Canadian Army Medical Corps. It will be published at an early date.

Lieut.-Colonel Charles F. Martin, Montreal, will shortly leave for England and France. Col. Martin will likely be appointed officer commanding one of the Canadian Hospitals in France.



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Captain Edward Ryan, Superintendent of the Hospital for the Insane, Kingston, Ont., was recently the guest of the Rochester (N.Y.) Medical Society, where he delivered an address.

General George Stirling Ryerson, Toronto, is still in the West—Seattle, Wash.,—when last heard from. We are pleased to announce that Mrs. Ryerson is recovering in that city from a serious illness.

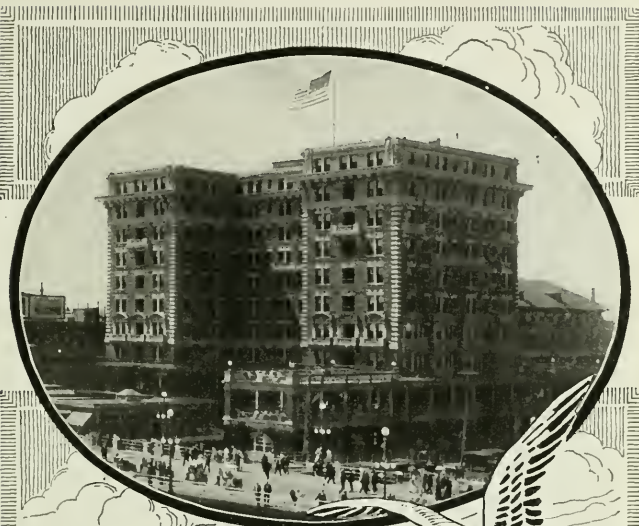
In the annual report of the Medical Officer of Health of Nova Scotia, the general death rate of cities and towns for 1916 was 17.6; infant death rate, 164.8. Great need for child welfare in Nova Scotia.

The following Canadians recently received honors at the hands of His Majesty: Colonel Alex. Primrose, C.B.; Colonel George E. Armstrong, C.M.G.; Dr. George W. Badgerow, London, England (formerly of Toronto).

Sir Arbuthnot Lane and Colonel Herbert A. Bruce, Toronto, were dined at the York Club, Toronto, the evening of the 17th of June. Afterwards the company proceeded to the Academy of Medicine, where addresses were delivered. Colonel Primrose, C.B., the President of the Academy, was in the chair; and the Hon. Dr. H. J. Cody, Minister of Education, was present and made brief remarks.

Four chairs are being planned for the medical faculty of the University of Toronto—Pediatrics, so that the Hospital for Sick Children and the University may be brought into closer relationship; Gynecology, Orthopedic Work, Surgery. The holders of the appointments are not to engage in private practice. Colonel Alexander Primrose, C.B., has been mentioned in connection with the chair of surgery.

Colonel Charles Hodgetts, C.M.G., formerly Canadian Commissioner for the Red Cross in England, has been appointed Deputy Commissioner of Medical Services under the Imperial Ministry of National Defence. Recently he was given a reception by Lady Perley, when he was presented with silver articles and an illuminated address by the Canadian Red Cross staff there.



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A large modern private house, near the corner of College Street and Queen's Park and within a block of the New Toronto General Hospital, has been converted into suites of physicians' offices, each office being modern in every respect, with hot and cold water and electrical connections for sterilizer, etc. A telephone switchboard with nurse in attendance has also been installed. There are still one or two vacancies and any physician desiring to secure a centrally located office should apply at once to the Housekeeper at 143 College Street. Telephone "College 590."

PROSTATIC TROUBLES.—In the prostatic troubles of men who are nearing or passing the meridian of life, as well as symptoms that are its concomitant, as difficult miction, sexual decline and premature decay, sanmetto is an indicated remedy. It is a remedy par excellence for these affections which befall men after the age of fifty. It is also a valuable remedy in case of ovarian and mammary affections in females. Sanmetto has been before the profession for a quarter of a century and has proved its right to stay. It is a soothing and building tonic to the reproductive organs and the mucous surfaces.

GONORRHEA IN WOMEN.—The application of an aqueous solution of iodine in connection with the administration of sanmetto is recommended in the treatment of gonorrhea in women on account of its ability to penetrate the subepithelial structures and deeper glands. It is also a stimulant, a counter-irritant and an alterative. The aqueous solution (*Liquor iodi compositus*) is used because of the pain caused by alcoholic tincture. The gonococci disappear early from the secretions, intrapelvic extension is far less frequent, and there is little pain. The entire course of treatment is comparatively short and causes but little trouble to either patient or physician. In acute and sub-acute cases, where vaginitis or vulvitis is present, the patient should be directed to use one teaspoonful of the solution to two quarts of warm water as a douche twice daily. In the chronic and mildly inflammatory cases the strength should be gradually raised from one to two teaspoonfuls, or until the patient begins to experience a burning or smarting sensation, indicating the limit of increase, the sanmetto to be administered in teaspoonful doses four times daily throughout the treatment.

Dominion Medical Monthly

And Ontario Medical Journal

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No. 2

Original Articles

MR. JUSTICE HODGINS' REPORT ON MEDICAL EDUCATION AND PRACTICE

By JOHN FERGUSON, M.A., M.D., TORONTO.

I.—NURSES.

It is with much pleasure one reads the careful and exhaustive study his Lordship has given to the position that nurses should occupy in any system of medical education, worthy of the name, for this Province. The nurse has now come to occupy a most important position in the practice of medicine, surgery and obstetrics. That nurses should receive a proper training must be admitted by all, and the place for this training is the hospital. Some of the salient features of the report are worthy of close study. The following statement lays the foundation for the case:

"The situation is such that thanks are due to the nurses themselves and to the hospital authorities for the high position occupied by nurses trained at many training schools in Ontario. The weakness is one due to want both of co-ordination and the standardizing of preliminary and professional education. While nurses trained in large general hospitals, sanitarium, children's hospitals, etc., become extremely efficient in matters which their experience covers, the fact remains that each suffers lack in some one or more departments of nursing which cannot be made up in Ontario. For instance, a nurse in our Isolation Hospital may never see a case of purely nervous disorder, and one in a sanitarium may know nothing of the diet and care of an infant. The missing experience has to be sought elsewhere, because there is no provision made for it in Ontario, and it is to be found in the post-graduate courses in the United States, where so many of our nurses go, and, having gone remain permanently."

The condition set out in the foregoing quotation has been before the minds of those who have taken an interest in the training and welfare of nurses. The Commissioner then proceeds as follows:

"Every effort should be made to prevent this, and to do so will need a very careful survey of the conditions existing in Ontario. But the remedy is clear, and that is co-ordination between and standardization of all hospital training schools, great and small, and whether devoted to infectious diseases, children's cases, tuberculosis, nervous disorders or general practice. In no other way can the lack which individual nurse suffers be made up. The smaller hospitals could give fundamental training in science, while the larger might give the varied but essential experience in different departments."

At this point of the treatment of the nurse problem it may be well to move slowly. The small hospitals might very strongly and with some reason object to a scheme of education that would remove their nurses to some larger hospital for their final training in the special branches, or in subjects that the special hospital did not teach practically. Such a plan of education would have the effect of filling the small hospitals with nurses in the earlier portion of their training and the larger hospitals with those who had arrived at the later period, or had become more efficient. Such a system might have the effect of supplying the small hospitals with junior nurses, and the larger hospitals with senior and better trained nurses. The small hospitals might object to teaching the "fundamental" subjects and then losing their nurses to the larger hospitals for the "essential experience in different departments."

The Commissioner has recognized this difficulty and states that it "will have to be earnestly studied so as to afford such a solution as will not interfere with the effective carrying on of large and small hospitals." The report then lays down this position:

"Provision should be made for a uniform preliminary educational qualification, as well as for a standardized and comprehensive professional training with outside inspection and strict examinations. And in this some way must be found to enable the student nurse in a small centre to be shifted to larger and more varied surroundings, and for those in general practice to study at special institutions, and vice versa."

The report mentions the formation of a "Council of Nurse Education." This would appear to be a necessity if the standard

of education is to be high and made somewhat the same in all the hospitals. The amending of the act so as to include all hospitals is set forth. It is further recommended that there should be a uniform preliminary education, a uniform curriculum, and uniform teaching and examinations. There should also be constant inspection of training schools, and there should be a proper equipment for teaching. With regard to the complete training of nurses the report contends that where one hospital does not afford a full round of experience another hospital must make up the deficiency. Here are the words of the report:

"To meet these deficiencies nothing can be done except by shifting those in training to places where their particular lack may be made up. This cannot be done without co-ordination, and, indeed without what may be termed affiliation under proper and practical regulations. Matters should be so arranged that each nurse during her period of training should cover each phase of nursing experience."

The Commissioner takes up the important subject of the nurses who have not had hospital training, but, nevertheless, do useful services for the sick. These practical nurses are entitled to careful consideration. His Lordship is clearly opposed to the granting to the trained nurse such legislation as would create for them a monopoly. In this view the vast majority of both the medical profession and the public will concur. Reference is made to the legislation which the Ontario Nurses' Association sought to secure; and the same is condemned in these words:

"Thinking this undesirable from a public standpoint, I have thoroughly examined the subject in order to ascertain whether there was a present danger of excluding nurses who could not qualify for this association, and whether there was or was not likely to be a class outside of graduate nurses whose services in a public or private capacity should prevent any monopoly being granted to any one class."

The report next deals with the various duties the nurse may be called upon to perform, such as ward work in a hospital, public health and sanitary work, welfare work, and duties in a sanitarium. Attention is then directed to the fact that "there does exist a complete want of special education in Ontario for those various avenues of work which I have just mentioned, as well as for the practical nurse."

The Commissioner then devotes attention to the registration of nurses. He is of the opinion that this must be conducted under Provincial authority. "This registry should include and classify

all nurses, having regard to their education, training or special work, and should so provide that if it should be found at any time possible to supply such a lower class as I have mentioned it might secure a special registry." Nurses for the various departments of social service duties could best be trained in the large cities, and it is suggested that it "could be added as a post-graduate course to the Department of Social Science of the University of Toronto."

The following opinion should meet with approval:

"With regard to the incorporation of graduate nurses, I see no objection to what they ask, provided the word 'registered' is kept for official use, and further, that anyone officially registered, other than those specially registered as practical nurses, should be eligible for membership in the Graduate Nurses' Association, or other nurses' associations, all of whose by-laws as to qualification for membership should be subject to the approval of the Lieutenant-Governor in Council.

It is clearly in the mind of the Commissioner that the graduate nurses should be granted every possible measure of legislative protection inside the creation of a monopoly. It is also clear that the practical nurse should be protected and that for her there should be a "special registry." Further, there should be facilities furnished whereby nurses might become efficient in special lines of public health and welfare work.

With regard to the "practical nurse," i.e., the one without hospital training, the report quotes the words of Miss Gunn, who is at the head of the training school of the Toronto General Hospital, in favor of such a class. Reference also is made to the work of Miss Goodrich, of Columbia University, N.Y., and also to Miss Carson, of Detroit. Both of these have much to do with the training of women to do practical home nursing. In the supporting statement a number of eminent authorities are quoted as favoring the proper training of a class of home nurses who could perform the double duty of looking after both patient and home.

Among the conclusions to the report there are several categorical statements made. First, there should be a Provincial registry, with branches, wherein all nurses according to qualifications may be registered. In the second place, "provision should be made by statute for the incorporation of home nursing associations to be established by municipalities or private benevolence to provide nurses for the care of the sick in their homes and their families." Three, "that the training of nurses, the establishment of further training schools and the affiliation and inter-relation of the various hospital training schools among themselves and

with other institutions in which either general or special training schools shall be established, the standardization of the educational requirements and the professional training of nurses, be at once taken up and dealt with."

It is to be hoped and urged that these timely and valuable recommendations shall soon become the law of this Province. If this should prove to be the case, the nursing profession will be raised to a very much higher level than is at present the fact. Further, all nurses in training would have the benefit of a much more efficient course, and the "practical nurse" or "home nurse" would be recognized, be better trained, and better paid.

II.—THE UNIVERSITY OF TORONTO AND THE COLLEGE OF PHYSICIANS AND SURGEONS.

The relationship between these two bodies is discussed at considerable length, and incidentally, the relationship of the College of Physicians and Surgeons to the other universities. The University of Toronto submitted to the Medical Commissioner its views, and contended that its degree should carry with it the right to practise without license from the College of Physicians and Surgeons.

The contention of the University was that though the College of Physicians and Surgeons did not teach, yet through its council it fixed the curriculum of studies. It also contended that the medical faculty of the University was made use of to teach the students who desired the license to practise, and received no contribution towards its cost from the College of Physicians and Surgeons. It was also argued that the conditions in the Province were quite different now to what they were when the College of Physicians and Surgeons was established, when there were proprietary medical colleges and several independent schools of medical belief. The University then placed the following position before the Commissioner:

"The Board of Governors is of opinion that the position in which our great provincial university is placed by the existing legislation upon the subject of medical education is harmful and humiliating and against public interests, and the board earnestly contends that the degree of medicine granted by the University should entitle the holder to registration and to license to practise, without further study or examination, and in support of this contention the board must refer to the exceptional position in the Province held by this University."

On this matter of the University His Lordship submits some questions, such as: "Is it necessary to maintain the present examining board separate from the university faculties: if the claim of the University of Toronto is granted, should the other universities be similarly treated: is it practical to do away with the examining board and constitute a Council of Inspection so that a license could be granted upon production of a degree from a university: if a separate examining board is retained, is the present composition of the Medical Council and its relationship to the University satisfactory?"

The report of the Commissioner goes on to show that the Medical Council has met the universities in a commendable way by accepting their examinations on all the subjects except medicine, surgery and obstetrics, which the Council still requires its own examination. It is also pointed out that while the Council has the power to fix the curriculum of studies, the entire burden of finding the equipment and furnishing the teaching falls upon the university.

The Commissioner very properly contrasts the British system, where the General Medical Council may fix the standard of examination, but does not fix the curriculum of medical studies, and determines that the duration of the medical studies shall be not less than of eight months each. The degrees and diplomas of other universities and other teaching colleges are accepted by the General Medical Council. This body has the right to appoint inspectors who shall attend at the examinations of the apprentices and colleges, with the object of ascertaining if proper standard. In this way the Medical Council in Britain keeps up the status of medical education. The universities and colleges must, therefore, satisfy the inspectors appointed by the General Medical Council.

His Lordship then goes on to the matter of appointing such an Inspector to attend at examinations to look into the condition of the buildings where teaching is carried on, to see what sort of equipment is maintained, etc. It is contended that this would entail considerable expense. Thus, we feel, would be run to the ground what is being done with the present system of appointing the examiners, and by a foolish reduction in the size of the Medical Council.

On many occasions we have expressed the view that the duplication of examinations should be abandoned. Everything that the present system entails can be secured by the appointment of an inspector by the Medical Council. No harm has come to

Manitoba, where the plan has been adopted of accepting the degrees of the University of Manitoba, and upon the presentation of these to issue the license to practise. We have no hesitation in contending that it would work out well in Ontario. Nothing but good has arisen from the change whereby the Medical Council has accepted for some time the examinations of the universities on all the fundamental and scientific branches of study. No harm would result from accepting the report of the university examiners on medicine, surgery and obstetrics, with the safeguard of the supervision of an inspector. Such a plan would go a long way also to standardize the examinations of the universities, as this would be one of the chief functions of the inspector. The Commissioner, however, remarks that, "I think it would be most unwise for any university to give up any part of the control of its degree-giving power, such as would be involved in allowing the Ontario Medical College to join in the examinations for degrees, even though by so doing it might do away with a second examination." We do not share in this fear, and we have the concrete experience that it works out all right in Britain.

His Lordship, while dealing with the very important topic of the relation of the Medical Council and the University, quotes from the Royal Commission on University Education in London, 1911, and he remarks: "My views in regard to this subject are in harmony with what I understand to be the conclusions of the report." In that report the following words occur: "The examination of university students should in this faculty as in others be conducted by their teachers, with the assistance of assessors. The protection of the public is provided for, as in the case of all qualifying examinations in medicine, by the inspection of the General Medical Council."

The Commissioner goes on to quote at some length from the report of the Royal Commission on University Education, and then concludes by giving his own views in these words:

"I have reached the definite conclusion that without independent examinations the only alternative is continuous inspection of teaching, its methods and quality, and the accessory equipment. This would involve great, and to my mind, unnecessary expense, which at present might be avoided.

"I have, therefore, recommended the continuance of the present system of examination, which avoids much of the duplication and yet maintains the quality of independence and stimulation so necessary to the maintenance of a proper standard."

There is so much in the report with which we agree that it is with much reluctance we differ from the foregoing. We think unanimity would be secured by the system of the Council appointing an inspector, that the universities would lose nothing in independence and efficiency, that the annoyance to the student body of two examinations would disappear, that the cost of the inspection would be met by the reduction in the number of examiners and the size of the Medical Council.

The Commissioner throws out the suggestion that the members of the Medical Council might act without remuneration, as do the benchers of the Law Society. He also recommends that the surplus from student fees after paying the cost of examinations be divided among the universities to aid in the teaching of students and the procuring of equipment. Then another recommendation is that the Medical Council shall consist of fifteen: six from the universities, as at present; one from the homeopaths, instead of five as at present; and eight from the profession at large, instead of eighteen as at present, and that they be elected by a general vote and not by territorial divisions.

With these recommendations, excepting the last, which we shall discuss later, we are in full accord. In the matter of the Medical Council there is one other very important recommendation that should receive the fullest study. It is as follows:

"That the constitution of the Ontario Medical Council shall be remodelled as recommended in the report, and the powers and rights given in the present Medical Act be altered and amended accordingly. That the regulations and the fees to be made and prescribed by the Council be all subject to the approval of the Lieutenant-Governor in Council. That provision be made for the payment over of the net fees from examinations by the College of Physicians and Surgeons, and the provision be made for the expending of the same in the interests of medical education through the medical faculties of the universities."

It is also suggested that the Council shall have power to suspend practitioners. It is recommended that if "any practitioner has been charged with any offence that involves guilt of infamous or disgraceful conduct in a professional respect and is acquitted by any court of competent jurisdiction after trial upon the merits, his acquittal shall be a bar to any proceedings against such practitioner under this Act upon the ground that he was in fact guilty of the offence of which he has been acquitted or that by reason of the facts and circumstances connected therewith he has been guilty of infamous or disgraceful conduct in a professional

respect." There is another suggestion of much importance, namely, that those practitioners who do not pay their annual dues shall lose their right to vote, and shall forfeit their registration. Should these recommendations find a place in a statute there will not be much trouble in future in the collection of the annual dues. The condition that now exists of about half of the registered practitioners only paying their fees should be made to cease, and the foregoing plan would be effective.

The last matter to be considered, so far as the Medical Council is concerned, is the proposed mode of electing the eight representatives of the profession throughout the Province. His Lordship states his views as follows:

"Territorialism is quite unnecessary. If the profession elects at large, the inevitable result is sure to be that the most outstanding practitioners, with here and there the representative of some one or more localities, will be elected. To make locality instead of eminence the qualification for election to represent a learned and scientific profession is reactionary."

There are arguments on both sides of this question, and we shall try to state our objections. In the first place, there are about seven hundred doctors in Toronto, and there is the possibility of combining on a slate, to the exclusion of other places. At all events, it would tend to throw the representation into the control of the large cities. In the next place, there can be both eminence and locality considered. There would always be some eminent members of the profession in all districts, so that it would not be merely a locality qualification. Then, the profession of Ontario differs from an ordinary learned society that meets in convention and elects its officers and executive. The individual doctor votes by ballot from his own home, and would be best able to judge regarding candidates in his own part of the Province. This is as it appears to us.

III.—MEDICAL, SURGICAL AND DENTAL FEES.

Some attention is devoted to the question of fees, and some very valuable suggestions are thrown out. Under the caption of fees, the report makes some remarks upon the topic of unnecessary operations. Among other things, the Commissioner says: "There is also an apprehension that surgery is too often resorted to where it is not strictly necessary; is, in fact, the vogue. If this is true, as to which I can express no opinion, the only preventive lies in some restriction upon the amount to be paid for the operation, and the fixing of that amount after the event, with

due regard to the necessity of the operation and the professional skill required and the danger involved. Surgery is only a method of treatment, just as medicine and manipulation, and should be so regarded."

This rule might go some way towards curing this evil so far as it may exist. We do not believe that the charge of doing unnecessary operations is at all well founded. The other statement made about the profession exacting high fees for operations may have more to rest upon, and yet one case may create the impression that such is a common practice. The report then states the following:

"But I am quite convinced that the appointment of a thoroughly competent man of experience and judgment would be of the greatest benefit to both the public and the profession, having regard to the considerations I have mentioned. This appointment should be made by the Provincial Government, after consultation with the College of Physicians and Surgeons and the Royal Dental College, respectively, and if possible with their concurrence. The duties should involve the taking of evidence after due notice to the parties and the fixing of the fee. It would be unwise to make this determination wholly final, but it should afford *prima facie* evidence of a reasonable fee in case it is disputed, subject to the leave being obtained summarily from a judge or court, whose jurisdiction would be determined by the amount claimed in one case or fixed in the other, to litigate the question. If leave is so given, then the onus should be upon the party disputing to convince the judge at the trial that it was either too high or too low. This provision would reduce litigation to a minimum, and yet would preserve the right of either party to resort to the court if desired."

This recommendation must be studied very carefully from all aspects before it is adopted. In the first place, the matter of fees is largely a matter of arrangement, the social status of the patient, and the experience and reputation of the physician or surgeon. There must ever be the greatest degree of elasticity in this question. If a provincial scale of fees should be adopted by the College of Physicians and Surgeons, a judicious taxing officer might serve a useful purpose in case of disputed accounts. He could weigh the ability of the person to pay, and the nature of the case, and give advice that might prove valuable, and be the means of avoiding litigation. Such a sort of taxing officer we regard as a possibility. "Thrice is he armed that hath his quarrel just," and so the surgeon or physician in performing a

proper operation or giving proper attendance and charging therefor a proper fee for the services rendered, neither has anything to fear at the hands of a judicious and impartial arbitrator, and in many instances it would satisfy the patient that the attendance had been proper, and the fee was not too high. It would also have the effect of making both surgeon and physician careful if it was known that the patient had always the right to the opinion of such a referee.

IV.—MEDICAL DIRECTOR.

The foregoing comments in the report lead to the recommendation that some one should be appointed by the Government with very wide powers, and known as a medical director.

This officer should not be connected with any university, college, hospital, or the Medical Council. He should have considerable power in the way of correlating the military establishments and the provincial hospitals. The conversion of the military hospitals back into ordinary hospitals, the introduction of physical therapy, will require much careful consideration that such a person could give with authority due to his position.

The advertising of remedies and the prevalence of venereal diseases could well come within the scope of such a person. The standard of medical education maintained by the universities and the Medical Council might also be scrutinized by the medical director, and also the power of the Dominion Medical Council to license those who practise in this Province.

"In addition to this, the consent of such an officer should be required before prosecutions under the Medical Act are begun, and he should have the right independently to direct them where necessary. The standardizing of the education of nurses and the arrangements for the inter-relation of the various training schools, as well as registration and the evolving and encouragement of some scheme for local and instructed nursing, such as is in vogue in Detroit, would occupy much time if properly handled. There is as well the real need for someone who would be, in effect, a protection both to the public and the professions against excessive charges, and particularly that branch of the question to which I have alluded, the elimination or reduction of unnecessary and costly operations. I know of no way in which that can be dealt with except by providing that if an operation is unnecessarily performed, or the charge is said to be excessive, the circumstances surrounding it can be reviewed by such an officer if anyone chooses to complain."

This seems somewhat Utopian, and certainly the medical director would have difficulty enough in living up to expectations. It does seem to us that it would be impossible to find anyone who could wisely decide upon such complex hospital problems as are here referred to; or who could deal judiciously with the training of nurses; or handle with satisfaction the matter of advertising; advise about venereal diseases; see that the medical colleges and the Council are conducting their affairs properly; and also note that there is adequate equipment for teaching purposes. The most difficult part, however, of his duties is that of deciding whether operations are necessary or not. It would be absolutely impossible for any man to be in all parts of the Province sufficiently often to be of any use. It may be accepted as a very general rule that to determine whether an operation is or is not necessary, the patient must be seen before the operation is performed. Some time after a breast has been amputated and the specimen destroyed, who is able to judge that the operation was justifiable and necessary. The same thing in the case of tonsils after they are removed. We feel that no man with all the wisdom of the fabled gods could fill the office.

V.—SO-CALLED COLLEGES.

With the views of the Commissioner on the so-called colleges all will agree, except those adversely affected. He says: "I regard it as very detrimental to the cause of medical education that these institutions—generally only a business name for an individual or a one-man company if incorporated—should be permitted to do any business under a name calculated to mislead the public as to the qualifications and real purpose of those concerned."

There is the true ring in this statement. It has been well known for some time that such bogus colleges existed, but there did not seem to be any way of reaching them. If the views of the Commissioner reach the statutory form then they can be effectively dealt with. The report states that:

"Legislation is urgently needed to stamp out the use of any name that will indicate that collegiate work or instruction in medicine or any medical manipulative method or any so-called science, either of medicine, optics, or otherwise, within the sphere of the healing art, is being taught. Those incorporated should have their privileges withdrawn at once."

This would not only prevent the formation of any new bogus college, but would close up those that may now exist. This power has been needed for some time, and it is to be hoped that it may come soon.

VI.—DEFINITION OF PRACTICE OF MEDICINE.

The report lays down the following as a suitable definition:

"The term 'practice of medicine' shall mean and include:

"(1) The use of any science, plan, method, system, or treatment with or without the use of drugs or appliances for diagnosing, alleviating, treating, curing, prescribing or operating for any human disorder, illness, disease, ailment, pain, wound, infirmity, injury, defect or deformity or physical or mental condition,

"(2) Diagnosing, alleviating, treating, curing, prescribing or operating for any human disorder, illness, disease, ailment, pain, wound, infirmity, injury, defect or deformity or physical or mental condition, and the holding, offering or undertaking by any means or method to do any of the foregoing, and including midwifery and the administration of anesthetics,

"(3) Any manipulation or other kind of physical or mental treatment whatever, suggested, prescribed or advised, for body or mind administered to, operated upon, or intended to be followed by the patient himself or herself, intended or professing immediately or ultimately to benefit the patient, and the holding out, offering or undertaking by any means or method to use the same or to diagnose,

"Any person who shall habitually use in advertising any title such as M.D., M.B., D.O., D.C., D.O.S., or any title as indicated thereby, or as surgeon, doctor, physician, healer, professor, specialist or any other letters, sign or appellation having the same or similar import in relation to medicine as defined above, shall be considered *prima facie* as practising medicine. Those possessing the degree of doctor of dental surgery, or being licentiates of dental surgery, shall not be within the above provision."

We do not feel confident to criticize the foregoing definition. It has been prepared by one who has had long experience as a lawyer, but to the best of our ability we think it covers every phase of the practice of medicine, by drugs, or suggestion, or manipulation, or operation, or diagnosing, or making use of any plan or method when such is for the alleviation in any way of any bodily or mental ailment or disease. But we respectfully submit that the word "habitually" in the last paragraph should be deleted. A

very objectionable sort of practitioner or quack healer might advertise for a short time and go away for a time, to return again.

The lack of a proper definition has caused much trouble, but should the foregoing, with amendment suggested, become a part of the proposed Medical Act, this difficulty will be solved. It behooves the medical profession to support every effort to have the "practice of medicine" clearly defined.

VII.—HOMEOPATHY.

The report points out that this cult has gradually grown fewer in numbers and that it does not manifest any enthusiasm. It has no college in this country.

It is also pointed out that some of the powers possessed by this body are not proper, such as the power of three of the homeopathic members of the Council to select the homeopathic examiners and colleges that students may attend, independently of the other members of the Medical Council.

It is recommended that the representation on the Medical Council be reduced from five to one.

We have given in this and the May issue of *The Canada Lancet* the salient features of Mr. Justice Hodgins' elaborate report, and the supporting statements that go with it. In some points we have felt it to be our duty to differ from the views set forth; but we are glad to state that this has not been frequent, nor, indeed, on what might be regarded as the most vital features of the report. On the whole the medical profession is to be congratulated that one so able and painstaking had the work intrusted to him of studying medical education and practice in the Province of Ontario.

A Text-Book of the Practice of Medicine. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of Medicine and Clinical Medicine, Medico-Chirurgical College Graduate School, University of Pennsylvania. Thirteenth edition, thoroughly revised with the assistance of John H. Musser, Jr., M.D., Associate in Medicine, University of Pennsylvania. Octavo of 1259 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$6.00 net; half morocco, \$7.50 net.

Anders' *Practice of Medicine* has been considered one of the foremost text-books for several years. The thirteenth edition proves its popularity. It may be readily recommended to medical students as meeting the full requirements of present time study of the subject.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

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Psychiatry: Ernest Jones, W. C. Herrman.

Ophthalmology: D. N. Maclellan, W. H. Lowry.

Rhinology, Laryngology and Otolology: Geoffrey Boyd, Gilbert Royce.

Gynecology: F. W. Marlow, W. B. Hendry.

Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.

Anesthetics: Samuel Johnston.

GEORGE ELLIOTT, MANAGING EDITOR.

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Vol. LI.

TORONTO, AUGUST, 1918

No. 2

COMMENT FROM MONTH TO MONTH

"Of His Own Knowledge" is a phrase used in the report of the special committee of the Ontario Medical Council with regard to the prescribing of liquor for patients. This implies that the prescriber must know that "the use of alcoholic liquor is necessary and proper for the treatment of the patient."

A physician might "of his own knowledge" know that a patient of his necessarily and properly requires liquor, and is unable to come for the prescription, or unable to go for the filling of the same—that is, he might be treating the patient in bed at the time with pneumonia—and the friends of the patient send a son for the liquor, who might on the way home get drunk, arrested, and the doctor be summoned to court for issuing such prescription, and fined for so doing. Many other cases might be cited. Consequently, it cannot be that this recommendation of the Medical Council is going to fill the bill.

The prescriber is not, as a rule, given to the prescribing of quarts of any medicine at any one time, nor a dozen quarts. Generally, it is an eight-ounce mixture which is given, if a liquid is prescribed, or a six-ounce-sized bottle. That recommendation of the Council for a maximum quantity of eight ounces seems a proper one; and the physician should direct the dose to be taken and the stated intervals similarly as with other prescriptions. The alcoholic prescription is no different from others. If a physician is treating a patient with an alcoholic prescription, he never knows but that the patient may be treating with another physician and

getting a similar prescription. Nor does he know but that the patient may sit down and drink off the entire prescription at one bout—go on a bat, as it is called. It is also quite true that he has no control over the ordinary prescription, and it is well known that oftentimes patients will take more than the allotted dose, if they are not getting the effect they expect to get. To protect the product as a medicine, so that it will not run out before permission be given for renewed manufacture and importation, the eight-ounce measure has great appeal and patients could not abuse their privileges, as the spree could not be a prolonged one, or of any considerable degree of profundity, provided they so betrayed the physician's advice and orders.

Alcohol in very many homes has been in the past an ever-ready household medicine, particularly in outlying communities; and it does seem a hardship that so many prudent and conscientious housewives are deprived of their old standby in cases of emergency, simply because there are some who will continue to abuse this handy medicine.

From particulars which have been published in the public press, it is quite evident that some physicians have abused their privileges in connection with these prescriptions, that is, so far as is known by the number of prescriptions issued; and the profession as a body have had to bear the stigma of being dubbed "bar-tenders." At any time there was not much difference between the man who stood behind the bar and the man who stood in front of the bar with his foot on the rail—just the counter or bar; but we have failed to see in the newspapers much exhortation on the part of the second class in the way of protection to the first class. The newspapers should remember that charity begins at home. They should continue the good work amongst their own class—those who liked to get the foot on the rail.

By the Ontario Temperance Act alcohol is to be prescribed as a medicine. Shouldn't all medicines be dispensed either by a physician or druggist? Why vendors at all! If alcohol is a poison, all the more reason alcohol should be dispensed by the druggist!

Should the physician who gives his prescription in good faith be held responsible for the man who goes out on the street and gets drunk therewith, any more than he should when a man swallows all his bottle of medicine at one time, which may have enough poison in it to kill him?

It all simmers down to this from the physician's viewpoint—Are we to treat alcoholism, which is manifested by a craving for drink, as a disease, and how are we to treat it? Is moderate drinking a disease? Should it be treated as such, and how?

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Montreal

ONTARIO MEDICAL COUNCIL

The Annual Meeting of the Ontario Medical Council was held June 25th to June 27th, 1918.

The officers elected were:

President—Dr. R. Ferguson.

Vice-President.—Dr. A. T. Emmerson.

Registrar-Treasurer—Dr. H. Wilberforce Aikins.

Solicitor—H. S. Osler, Esq., K.C.

Auditor—James F. Lawson.

Stenographer—George Angus.

Prosector—John Fyfe.

The following medical colleges in the United States were added to the list of accredited colleges in Ontario:

1. Hahnemann Medical College of Philadelphia.
2. University of Michigan Homeopathic Medical School.
3. Boston University School of Medicine.

The Council passed a resolution asking the Militia and Defence Department to "reconsider the regulations relating to medical students under the Military Service Act.

"The depletion of the profession throughout the Dominion by the demands of the military service and the reduction of the number of students in attendance at medical schools by voluntary enlistment and conscription, has created a situation which must result in a complete breakdown of medical services, both civil and military, in the near future.

"The Council desires to represent to the Department of Militia and Defence the necessity of immediately making provision to continue the education of a sufficient number of students.

"The Council is of the opinion that young men who completed their preliminary education and entered upon the study of medicine before attaining military age should be permitted to continue professional studies, and that this policy should be applied to the matriculation classes of this and subsequent years.

"In January last the British War Office intimated that Canadian medical students who had completed one year of study, and who were in any branch of military service overseas, would be permitted to return to Canada to resume their studies. In view of the gravity of this situation, this Council requests that this privilege be extended to men who are in service overseas, and who, prior to enlistment, had completed matriculation in medicine or had entered upon Arts or Science courses, in preparation for the



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study of medicine. It is suggested that the staff of the Khaki University assist in the selection of these men."

The following resolution was passed: "That whereas the medical examinations of the manhood of Canada, for military service, reveals a serious percentage of physically unfit, varying from 40 per cent. to 70 per cent., this Ontario Medical Council is of the opinion that some form of supervision of the health of the country should be instituted by the State, and suggests that this matter be referred to the proper departments in the Dominion and Ontario Governments."

It was decided to ask the Federal and Provincial Governments to modify the Patent Medicine Act, so as to prevent the misbranding of proprietary medicines, and the publication of "fake" testimonials, etc.

The following are extracts from the report of the special committee appointed to consider the attitude which the College assumes toward the observance by its members of the provisions of the Ontario Temperance Act: "The Medical Council are of opinion that the giving of orders by medical men for the obtaining of alcoholic liquor is justified in any case in which the medical man is satisfied, 'of his own knowledge,' that the use of alcoholic liquor is necessary and proper for the treatment of the patient, and

"That this Council would deprecate the giving of such orders upon any other ground whatever,

"The Medical Council would request that the Board of License Commissioners take such steps as may be necessary to ensure that liquor sold on such orders be of proper quality and purity,

"That means be taken by the Board of License Commissioners to investigate and deal drastically with all cases in which the provisions of the 'Ontario Temperance Act appear to be subverted,'

"We are of the opinion that the quantity of alcoholic liquor for internal use be limited to eight ounces."

SPOTS ON THE PENWIPER

A writer in one of our exchanges speaks of pruritus ani as one of the *end* results of pyorrhea alveolaris.

On the treatment of psoriasis a noted lecturer advises his students: "Put your patient with psoriasis to bed; give him hypodermics of arsenic, and collect your bill before he relapses."



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One of the new regulations of a Food Administration states that we are all to eat the last bean and pea on our plates.

In England they have been calling-up medical men. In Toronto, a Canadian medical journal has been calling-down members of the Academy of Medicine.

"Lessons from the Enemy" has been published by Lea & Febiger, Philadelphia. What we want to do, however, is to teach the Enemy a lesson.

If Toronto has not experienced much Botulism, it has had more than its share of "Bettleism."

A new bacillus has been isolated from the must of beer. It is said to be mobile, spore-giving, ovoid in shape, and swelling slightly in the centre. Must be like the human being who also swells in the centre when swilling in beer.

Speaking of sacrifices during war time, one young lady is giving up the corrugated paper cups on her bon-bons; a gentleman will do without the paper bands on his cigars; and medical men will gladly forego the annoyance of circulars from the firms which never advertise.

"The Kingston *Whig* thinks it pretty hard on a medical fraternity which is too proud to advertise, that doctors have come to be known as Ontario's bartenders." What'll you have, *Whig*—booze ads, or patent medicine ads?

PUTTING WAR CRIPPLES BACK ON THE PAYROLL.—Fifty Maimed Soldiers Will Demonstrate Vocational Training at the Canadian National—Much has been heard regarding the plans of the Dominion Government to help war cripples to secure remunerative employment in spite of even the most serious wounds or other injuries. But, though Canada is conceded to be far in advance of all other Allied countries in the work of reinstating her maimed heroes, comparatively few people have seen actual evidence of the miracles being wrought for the men by specialized vocational training and physical reconstruction. This will be remedied at the Canadian National Exhibition, where at least fifty men who have been restored to full usefulness will demonstrate how the soldier beneficiaries of the Government's rehabilitation programme have been made economically self-supporting. Included will be a number of blind men, who have been re-educated and are back on the civic payroll. The men will demonstrate at least fifteen industrial processes, including typesetting, oxy-acetylene welding, jewellery manufacture, lens grinding, assaying, etc.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. LI.

TORONTO, SEPTEMBER, 1918

No. 3

Original Articles

ONTARIO MEDICAL ASSOCIATION

By A. H. WRIGHT, B.A., M.D.

In the summer of 1880 Dr. James E. Graham and I had a conversation in which one of us (I think he) suggested the advisability of establishing a Provincial Medical Association. We both set to work at once with this object in view. On October 7th, Drs. Joseph Workman, C. W. Covernton, J. E. Graham, A. H. Wright, J. H. Burns, and J. E. White met as an organizing committee in Doctor Graham's house. Doctor Covernton was elected chairman, and Doctor White, secretary. Circular letters were sent to all local societies, and many prominent physicians, asking for opinions respecting the proposed organization. The labors of the secretary, Doctor White, for some months were beyond praise.

All the local societies and individual physicians endorsed the scheme, with one exception. Sir James Grant, speaking for the Ottawa Medical Society, thought we should rather endeavor, for a few years at least, to throw all the life blood possible into the Dominion Association. These views, coming from one we respected so highly, were considered worthy of careful consideration; but, so far as could be learned, there was a unanimous opinion, outside of Ottawa, that the establishment of such a society would not injure the Canadian Association.

At a meeting held in Toronto, February 21, 1881, Doctors Macdonald, Mullen, Rosebrugh, Mackelkan and Woolverton, from Hamilton, met the Toronto committee, and the two were combined to form the provisional committee for organization. The hearty co-operation of this strong combination from Hamilton gave much satisfaction to the Toronto men, and added greatly to the strength of the committee in the work of the organization. With deep regret I have to state that I am the sole survivor among the members of this original committee.

Since the first meeting in Toronto under the presidency of Dr. C. W. Covernton, there have been what I might call three crises in the history of the Association. The first arose from dissatisfaction regarding the work of the secretary. It was generally recognized that his enthusiasm, energy and working ability contributed much towards the success of the Association in its earlier years. After a time it was thought that he was assuming too much, and attempting to "run the Association." Although it was generally conceded, even by his friends, that he displayed poor judgment, many disliked to see him humiliated, and urged him in a friendly way to resign. At a certain meeting he was dismissed in rather a cruel way by a vote which was almost unanimous.

At the same meeting several changes were made in the constitution, one of which I always thought unfortunate. According to the original constitution the important Committee on Nominations was formed as follows: At the first meeting nine members were elected. I am not sure as to the exact number, but let us suppose it was nine. Each succeeding year three were dropped and three were elected. This plan is the best I have known, and prevents largely the dangers which are apt to occur in any society through the work of small coteries at certain times.

The second crisis occurred shortly after the affiliation of the Ontario with the Canadian Medical Association. It unfortunately happened that a clause was introduced which afterwards created considerable trouble and dissatisfaction. According to it no Provincial Association could hold its meeting during the year when the Canadian Medical met in that province. The first trouble in connection therewith arose in 1910, when the Canadian Medical met in Toronto.

The Ontario Medical, under the presidency of Doctor Casgrain, having no knowledge of this objectionable clause, made all arrangements to hold its meeting that year at Niagara Falls. When the clause was pointed out to them the president and local committee at Niagara Falls refused to give up their meeting. As president of the Canadian for that year, I made strong efforts to induce them to change their decision and postpone the meeting for one year. This was done with happy results. Two very successful meetings were held, one in Toronto, in 1910, and the other in Niagara Falls in 1911. When the Provincial Association was prevented a second time from holding a meeting in 1913, there was a very strong feeling of resentment among the members. It was felt that the arrangement was materially injuring the Provincial Association, without helping in any degree the Dominion Society.

I had hoped that something would be done in 1911 or 1912 to remove the grievance, but as nothing had been done, I gave notice of motion to have the Ontario withdraw its affiliation from the Canadian Association. At the meeting in London many members of the Dominion Association expressed strong disapproval, and wished me to withdraw the notice of motion. I positively refused, but at the same time stated that I did not object to the affiliation in itself, but I did object to interference with our rights in Ontario to hold our meetings when we pleased. To avoid any mistake I put it in writing, intending to send it to the Ontario Secretary; but instead of accepting my proposal in a friendly spirit many of them continued their protest, while a few became actually offensive.

I felt very sorry to be misunderstood, especially by members of an Association which had honored me by making me President, but I felt certain that I was right and they were wrong, and if the worst came to the worst, I was determined to stand by the Ontario Medical Association, because I loved it more than any other organization I was ever connected with.

I received a letter from Dr. Murray MacLaren, President-elect of the Canadian Association, in April, 1914, asking me to explain the situation. I replied: "I do not think that many (if any) want permanent separation, but rather a different sort of affiliation. The present arrangement is complex and unsatisfactory. The Ontario members, so far as I understand their opinion, would like to have absolute control of their provincial society. I have little idea as to what will be done at the next Ontario meeting, but I have every reason to hope that a friendly feeling will be shown towards the Dominion Association."

I found before the Ontario Medical meeting that many members of the Canadian were quite inclined to agree with me. The *Canadian Medical Association Journal* published an editorial in April, 1914, in which the writer referred to the fact "that each Provincial Association agreed to forego the right of meeting in the year in which the larger Association met in the Province." After stating that this made no sacrifice for Quebec and the smaller Provinces, he says: "Ontario stands in a different category . . . and the suspension of a meeting is all the more hardly felt. . . . At the meeting in July the abrogation of this rule might well be made a matter for consideration."

On the day preceding the meeting I was amazed to see certain remarkable statements appearing with flaming headlines in one of the daily newspapers of Toronto. The headlines in large letter-

were: "Doctors' meeting may be stormy," "Local clique said to be working for split in Associations," "Ontario medical combination promises to be the liveliest on record." Under these headlines were several remarkable statements, including the following: "They, the clique, hope to bring about a break between the Associations, and whether they succeed remains to be seen. If the meetings were held outside of Toronto an attempt to punish Doctor Macphail would be defeated by a large majority, but to-morrow's meeting may be packed with sympathizers of the clique. If they succeed, the outside members, with a large and influential section of the Toronto profession will, in all probability, form a new Ontario Association in affiliation with the Canadian. . . . The anti-Macphail crowd are interested in four medical journals, whose existence is threatened by the journal edited by Doctor Macphail. They hope that the break between the two medical journals will cripple Doctor Macphail's journal, and help their own. They are, however, not far-sighted. This was shown when they blackballed Doctor Macallum in the Academy of Medicine."

These statements were interesting to me, inasmuch as I was "the clique" so far as this meeting was concerned. Beyond some general explanations, such as those given to Doctor MacLaren, I said absolutely nothing to anyone expecting to attend that meeting until after the proceedings commenced. From the day that the Ontario Executive threatened to repudiate affiliation because "they said the majority of the members knew nothing about the law regarding the affiliation, which had been rushed through at a small business session in the last few months of the Hamilton meeting in 1908, the majority, even of the small number present, not knowing what they were voting for." I had been feeling Ontario's pulse, and I knew in giving my notice of motion that I was acting in accordance with the wishes of the vast majority of our members, especially outside of Toronto. As to the results at the meeting I never had doubts. According to an understanding between Doctor Wallace, of Hamilton, and myself, during the progress of the meeting, he moved, seconded by Dr. N. A. Powell, that the matter be left to a certain committee. I withdrew my motion and supported Doctor Wallace, whose resolution passed without a division.

I may say, incidentally, that there is no such thing as "an anti-Macphail crowd in Toronto. I do not believe Sir Andrew has a single enemy in the city. Personally, I look upon Andrew Macphail as one of my dearest friends, and the flavor of our friendship is very sweet to me.

And now let us consider the present crisis, which is very serious. One of the aims of this historical sketch is to show how deep is our indebtedness to the profession of Hamilton. In the organization of our Association many of us felt that we got more assistance in Hamilton than in Toronto. In that connection I have always felt that the late Doctor Mullen, who was a man with very high ideals, was a great tower of strength.

While preparing for this year's meeting it soon became evident that the local committee in Hamilton intended to take full control. Our officers in Toronto were sidetracked. The Secretary, Doctor Clarkson, was treated with scant courtesy and practically ignored. I fear that the Treasurer, Dr. Elliott, was also treated without much ceremony. No local committee has the right to assume such an arrogant attitude. Serious trouble arose in the three Health Associations, the officers of which refused to give up the control of their scientific programmes. Friction became so pronounced that it looked at one time as if a break would occur, and these societies would withdraw and hold their meetings elsewhere. This would have meant a loss for the Hamilton meeting of three to four hundred visitors. Fortunately the matter was arranged. The three Health Associations preserved their identity and held three meetings on three consecutive days, at the same time doing a certain amount of "joint work." In this connection one might ask, why did not Doctor Clarkson also assert his rights? I do not know the answer, but he is not naturally aggressive, and, any way, he could do but little, as the President supported his local committee. It seems ingracious to criticize the President, who by his conduct and ability as a presiding officer won golden opinions during the meeting; but he and the other members of the committee must accept their share of responsibility for the foolish actions of the local secretary, as they apparently gave him a free hand and, as far as outsiders can judge, supported him in every way. So far as the programme of the Ontario and Canadian Associations was concerned, it is doubtful if anyone outside of Hamilton approved of bringing so many outsiders—thirty-three or thirty-four from the United States and only thirteen or fourteen from Canada. After all, these Associations are Canadian, and physicians from Canada should read the majority of the papers. No medical association in the United States would think of asking Canadian physicians to read over seventy per cent. of the papers at any meeting. However, very few made any complaints, but many expressed the hope that such a thing would never happen again. The three Health Associations remained essentially Canadian, and their meetings were not less successful than the others.

One person who knows a good deal about the matter expressed the opinion that nothing unconstitutional had been done. I do not wish now to discuss the legal aspects, but I think Doctors Morton, Parry and Mullen exceeded their rights when they took control of everything. Three of the five societies held a similar opinion and refused to consent. What the C.M.A. officials thought I do not know. However, apart from any consideration of the rights of the Dominion Association, it was bad policy for the Provincial body to antagonize three strong associations devoted to the interests of public health.

And now a few words as to publication, which I am writing on my own responsibility and without the knowledge of any other member of the Association. If, therefore, there be any odium attached to the opinions expressed I must accept it all. The publication of the transactions in book form is, of course, not a new idea. It was often talked of in earlier years, and once tried with rather a dismal result. The custom universally observed heretofore in the O.M.A. has been to divide the papers and addresses among the Ontario medical journals for publication. There are now five medical journals published in Ontario, and Doctors Morton, Parry and Mullen ignored four journals and appointed the publishers of one journal, the Macmillan Company, "Official Reporters of the Convention."

I understand the Macmillans have agreed to publish the papers in a volume of over three hundred pages, taking all the risks themselves. This looks generous, but very peculiar, because an experienced business firm understands quite well all the risks involved. A "volume of transactions" has little commercial value, and the sale of such a publication is not likely to cover expenses. A solid, level-headed firm such as the Macmillans would scarcely take a risk of that kind without the prospect of compensation in some other direction. The air is full of rumors, which under ordinary circumstances one might assume to be incorrect; but unfortunately rumors which floated months ago about the doings of the energetic trio in Hamilton seemed to be absurd, but were actually true.

Let me ask this trio when will the different Associations get a report as to members, finances, and other details? I was informed more than two months after the meeting that no such report had been presented. Unfortunately the local committee did collar the management of the financial details of all the societies of the meeting. How long will the committee remain in existence? Who is Doctor Routley, the new Secretary? Is it true that he was part of the *bargain*, and the nominee of the Macmillans? Why were

the former Secretary and Treasurer frozen out? Is it true that a scheme has been concocted whereby an association journal will be published, with the trio in charge of the editorial department? I feel sorry and reluctant to ask if these men have taken advantage of their positions as temporary officers to do something which will benefit themselves and give them practically the control of the Association? Two of them are personal friends of long standing. In their student days they always received a warm welcome in my house. Since then they have ever been held in the highest regard by my family, including myself. When I hear such charges made against them, I should like much to be able to say: "No, these two—boys yesterday, men to-day—are clean and straight."

In conclusion, let me make my position clear. If certain members want an Association journal, such an idea is perfectly legitimate and unobjectionable; but let there be no back-door scheming. Let those in favor express their opinion, formulate their plan, give due notice of motion at one meeting, and let members vote on it at the next, and let every loyal member accept the mandate of the majority.

A RATIONAL TREATMENT FOR SIMPLE GOITRE *

By HENRY R. HARROWER, M.D., Los Angeles, Cal.

There have been many forms of treatment recommended for the control of the simple form of thyroid hypertrophy and this in itself is an indication that the individual recommendations have been lacking in some respects. We still meet numbers of goitreous individuals who have tried electricity, osteopathy and many forms of medicine, so evidently a "specific treatment" has yet to be discovered.

There is a method, however, that really offers quite a uniform degree of success and it differs from the previously recommended procedures not so much in its novelty as in its comprehensiveness. In other words, heretofore we have not done as much for the cases of goitre which come under our care as we should have done. Our treatment has been incomplete.

The limitations of space forbid a thorough discussion of the etiology and pathology of simple goitre; nor can we take up for

* *American Medicine.*

consideration the various lines of treatment that have been passed on to the profession with greater or less enthusiasm in an extremely voluminous literature.

We must be reminded of two facts upon which we can base our conclusions as to treatment; that endocrine hypertrophy ordinarily is the result of two physiologic processes—either there is a toxemia present which is irritating the gland, or there is a deficiency of the products of the gland (an inadequate supply or an unusually great demand) and its hypertrophy is the result of a laudable attempt to supplement the production of its contribution to the welfare of the organism of which it is a part—its internal secretion.

Ordinarily the result of toxemia is not merely hypertrophy but hypersecretion, though this is not a rule. The profession is about agreed that hyperthyroidism and the form of goitre accompanying it are very commonly the result of foci of infection somewhere in the body. Here the goitre is by no means "simple," nor is the symptomatology—nor, for that matter is the treatment!

With our present knowledge of the several varieties of goitre we have come to agree with McCarrison that intestinal infections, often the result of the food or, more likely, the water supply, may be a common cause of goitre, and that the control of these infections by attention to the alimentary tract and the use of intestinal antiseptics like thymol and the "friendly germs," is a rational and resultful step in the routine treatment.

Naturally if we can manage to pin down the actual cause of the goitre, the treatment would be inadequate without a thorough-going attempt to eradicate it. The prevalence of oral and dental infections accompanying simple goitre has been demonstrated with accuracy and proved by extensive statistics. Such infections should be sought and controlled.

The fact that goitre is essentially a disease of girls and women and that many times its onset is related in some way to the establishment of the menstrual function or is objectively connected with factors related to the ovarian endocrine function, calls for careful study of these functions and attempts to control dyscrinism as early and as effectively as possible. Many a case of thyroid enlargement has resulted from dysovarism; and efforts to regulate the thyroid while ignoring the ovaries often result in failure. This explains the frequent benefit which comes from combining ovarian or luteal therapy with thyroid gland, and *vice versa*.

The best known remedy for goitre is considered to be iodine in some form. I have used it in several ways, including the most

common form, the iodide of potash and per inunction. Undoubtedly iodine is one of our most valuable remedies; but for some reason the clinical results of applying the current text-book or medical journal recommendations, or those of the manufacturers of "goitre tablets," are not particularly encouraging. However, I believe that the successful medical treatment of simple goitre would not be complete without some form of iodine.

If the thyroid hypertrophy clearly is the result of an attempt on the part of the organism to augment a deficient supply of thyroid "stuff," i.e., if there are evidences of hypothyroidism obviously the most rational thing to do is artificially to supplement the supply by thyroid gland feeding; and this is the reason that thyroid therapy in certain forms of goitre is sometimes so successful.

To my mind the most satisfactory routine treatment of simple goitre should consist of a combination of these measures. One cannot always be assured of the accuracy of one's surmises as to the etiology of a given case of goitre. The infective origin may be clear and yet the successful control of the infection does not necessarily cause a reduction in the size of the goitre. The presumption that there is a sufficiently well-defined hypothyroidism present and that the goitre is nothing but a compensatory hypertrophy, may lead to thyroid feeding and some eventual benefits; but only a partial success. The same applies to the administration of iodine in its various forms.

I am taking the liberty of submitting an outline for a routine treatment which is suggested as a means of "regulating" the individual with goitre. I believe that this procedure is more successful than any of its component parts alone:

First, determine the character of the thyroid enlargement, study the other endocrine glands and most carefully eliminate all possibility of overlooking hyperthyroidism. This is best accomplished by a very brief period of experimental thyroid gland feeding. For three or four days the patient, while under careful supervision, receives increasing doses of desiccated thyroid gland. On the first day three-quarter grain doses are given; on the second day three half-grain doses; on the third, five or six half-grain doses, and, if necessary, on the fourth day three or even four one-grain doses. Occasionally one notices that the pulse, temperature and temperament are affected sufficiently on the second or third day of this test to convince one that the patient is not definitely hypothyroid because of the discovered susceptibility to the thyroid that has been administered. If, on the other hand, a goitre case can take

four grains of U. S. P. thyroids (or 20 grains of the tabloids which are dosed on the basis of "fresh gland substance") with no evidence of thyroidism, it is safe to presume that the goitre is not accompanied by increased endocrine function of the gland.

Having ruled out the chance of an early or insignificant hyperthyroidism and, in the meantime, having searched carefully for dental, gingival, oral tonsillar or sinus infections and also for foci of absorption elsewhere in the body (especially in the colonic angles), we can start aggressive treatment. At the outset, and during the routine just described, I recommend a series of cleansing enemata at night and after evacuation I have the patient inject four ounces of plain cottonseed or olive oil. This is repeated three nights in succession and is continued once a week thereafter, during the treatment.

Generous quantities of the "friendly germs" are prescribed each day. I order a supply of dextrose (or glucose) and have the patient prepare 3½ points of a 2 per cent. solution (half an ounce to the quart), warm to blood heat and add a tube of one of the standard cultures of the *B. Bulgaricus*. It is then placed in a fireless cooker for twenty-four hours, cooled, and the patient is directed to drink 1½ quarts each day between meals. This opalescent fluid is not unpalatable and may be flavored to taste. The remaining glassful is used as a "starter" for the next day's batch.

If it seems advisable intestinal antiseptics may be prescribed as circumstances indicate. McCarrison expresses great faith in thymol. At present thymol is not convenient, so one can use the sulphocarbolates, bismuth salicylate or other similarly acting drugs—to effect.

In practically all cases of hypothyroidism and in most cases of goitre there is a condition of reduced metabolism and demineralization, or insufficient blood alkalinity. This is discovered by laboratory tests and is controlled by the daily administration of alkalis or, better still, of the combined salts similar to those present in the blood. From 20 to 100 grains may be given each day, in divided doses (for instance, with the culture) an hour before meals. The initial large dosage is soon reduced to about 30 grains a day.

Finally there is the positive medication, for all the preceding suggestions are really negative treatment and in the nature of the clearing of the decks prior to the engagement.

I suggest that a maximum of 1½ grains of U. S. P. thyroid gland be given daily for several months. It is useless to expect radical results in a few weeks; and larger doses for a shorter period certainly are not so efficacious. Ordinarily I prescribe

$\frac{1}{4}$ grain t. i. d., and with it I give the iodide of iron in doses of $\frac{1}{4}$ to $\frac{1}{2}$ a grain combined with nucleinic acid and the mineral salts just referred to. This seems to act considerably better than thyroid, iodides or other single remedies, and, when supplemented by innunction of varying amounts of yellow iodide of mercury ointment each night, one can depend upon good results if they are at all attainable.

In my opinion there is no place for surgery in the treatment of simple goitre. If the goitre does not respond to several months of the above routine treatment, it may be safely taken from the above classification and called an adenoma, the treatment for which is surgical. However, these more serious thyroid tumors constitute a very small minority of goitres, and properly may be treated as suggested, before surgery is resorted to.

ONTARIO MEDICAL COUNCIL AND THE ONTARIO TEMPERANCE ACT

At the first session of the Annual Meeting of the Medical Council, which began on the 25th day of June, 1918, Dr. Arthur Jukes Johnson, seconded by Dr. Hardy, gave notice of motion that "at the next meeting we propose to ask for the appointment of a committee to consider and express the feeling of this Council with regard to the relations between the profession and the Ontario Temperance Act."

At the session first next following, Dr. Johnson moved, seconded by Dr. Hardy, the motion of which notice had been given at the preceding session, "that a committee composed of Sir James Grant, Dr. J. M. MacCallum, Dr. Eccles, Dr. Connell, Dr. Stewart, together with the mover and seconder, be appointed to consider and report on the question as to the infringement of the Ontario Temperance Act by medical men."

This motion was carried.

On the same day this Committee was called together immediately after the Council rose, and, after the question had been fully discussed in committee, the following report was presented:

"Toronto, June 27th, 1918.

"To the President and Members of the Council of the College of Physicians and Surgeons of Ontario,

"Gentlemen—

"I have the honor herewith to present the Report of the Special Committee asked for two days ago in regard to the infringements of the Ontario Temperance Act.

" The Medical Council are of opinion that the giving of orders by medical men for the obtaining of alcoholic liquors is justified in any case in which the medical man is satisfied, ' of his own knowledge,' that the use of alcoholic liquor is necessary and proper for the treatment of the patient, and

" That this Council would deprecate the giving of such orders upon any other ground whatever.

" The Medical Council would request that the Board of License Commissioners take such steps as may be necessary to ensure that liquor sold on such orders be of proper quality and purity.

" That means be taken by the Board of License Commissioners to investigate and deal drastically with all cases in which the provisions of the Ontario Temperance Act appear to be subverted.

" All of which is respectfully submitted.

" Arthur Jukes Johnson."

This report was adopted, subject to the addition of a clause moved by Dr. King and seconded by Dr. Stewart, " that the quantity of alcoholic liquor for internal use be limited to eight ounces."

When the above resolution was proposed, the charge against Dr. Moorhouse had not become public, but during the period of presentation of and passing by the Council of the resolution cited a conviction had been recorded against Dr. Moorhouse in the Police Court, a full report of which appeared in the daily papers.

So insistent did this matter seem, that a motion was carried in the Council asking that the Executive Committee be directed to enquire into this case *ad interim* and later report to the Council. This became necessary for the following reasons:

1. If a complaint is made against a registered medical man, asking the Council to take action therein, whether the initiative be taken by the Council or its Executive Committee, on the one hand, or upon the responsibility of any four members of the College, as attested by their written signatures, on the other, the complaint can only be investigated by the Discipline Committee of the Council.

2. Until the Discipline Committee has duly investigated the charge and reported its findings, the Council cannot act therein.

3. Notice must be given to the accused that he may have an opportunity of preparing his defence and of being heard before the Discipline Committee.

The action of the Council in referring this matter to the Executive Committee ensures instructions being given to the Dis-

cipline Committee to enquire into this matter and to present their report to the Council at the earliest possible date that the Council may be prepared to deal with the whole matter.

It will be seen that these two motions, while they are closely related, refer to separate conditions; the first motion refers to the way in which the profession feels towards the Ontario Temperance Act; the second one is a mandate of the Council that the Discipline Committee, a committee specially appointed for the purpose of making enquiry into all matters relating to members of the College, consider the case against Dr. H. H. Moorhouse as it appeared in the public prints, and report as to their finding in the same.

BOOK REVIEWS

International Clinics. Vol. II. Twenty-eighth Series. 1918. Philadelphia and London: J. B. Lippincott Company. Montreal office, 201 Unity Building.

Seven articles, practical clinics: two in medicine, one in public health, three in obstetrics and gynecology, one in ophthalmology, three in surgery, one in history—make up this volume, which is finely illustrated.

The Unguarded Mind. By ROBERT HOWLAND CHASE, M.D. Illustrated. Price, \$2.75. Philadelphia: F. A. Davis Company.

This book of 351 pages presents many interesting items of a semi-scientific character; and to the general practitioner, who does not, as a rule, read too much in mental diseases, should be acceptable.

The Medical Clinics of North America. Vol. 1, No. 6. (The Southern Number, May, 1918.) Octavo of 224 pages: 35 illustrations. Philadelphia and London: W. B. Saunders Company, 1918. Published bi-monthly. Price per year: paper, \$10; cloth, \$14. Toronto: J. F. Hartz Co.

An unusually good number of this popular periodical.

News Items

Dr. Harry B. Anderson, Toronto, has been elected Vice-President of the American Therapeutic Society.

The Isolation Hospital, Toronto, now makes the following charges: Public wards, \$1.25 per day; semi-private wards, \$2.00; private wards, \$3.00.

Dr. H. A. Stewart, Saskatoon, Sask., has been elected to the Senate of the Saskatchewan University to represent the College of Physicians and Surgeons of that province.

Dr. Francis J. Shepherd, Montreal, formerly Dean of the Medical Faculty of McGill University and Professor of Anatomy, has been making an investigation of goitre in Alberta for the Canadian Conservation Commission.

Lieut.-Colonel John N. Gunn, C.M.G., Toronto, formerly officer commanding the 8th Canadian Field Ambulance in France, has been appointed Assistant Deputy Director of Medical Services in Military District No. 14 at Calgary.

Lieut.-Colonel Andrew Croil, Saskatoon, who went to France early in 1915 and became chief of the surgical service of No. 2 Canadian General Hospital, returned to Canada some months ago and is now in charge of surgery at Camp Hill Military Hospital, Halifax, N.S.

Dr. Benjamin E. Hawke, Toronto, who has been serving as lieutenant in a hospital at Epsom, England, has been appointed examiner of a travelling medical board, with headquarters at Tunbridge Wells. He is now engaged visiting hospitals and camps, reclassifying soldiers.

Captain D. E. Staunton Wishart, son of Dr. D. J. Gibb Wishart, Toronto, after serving for three years in the R.A.M.C. in the East, has returned to England and been appointed on the staff of No. 4 Canadian General Hospital at Basingstoke. He served in the Dardanelles, at Saloniki and in Palestine.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

Obstetrics: Arthur C. Hendrick.

Pathology and Public Health. John A. Amyot, Chas. J. C. O. Hastings, O. R. Mabee, Geo. Nasmyth.

Dermatology: George Elliott.

Physiologic Therapeutics:

J. Harvey Todd.

Psychiatry: Ernest Jones, W. C. Herrman.

Ophthalmology: D. N. MacLennan, W. H. Lowry.

**Rhinology, Laryngology and Otol-
ogy:** Geoffrey Boyd, Gilbert Royce.

Gynecology: F. W. Marlow, W. B. Hendry.

Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.

Anesthetics: Samuel Johnston.

GEORGE ELLIOTT, MANAGING EDITOR.

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TORONTO, SEPTEMBER, 1918

No. 3

COMMENT FROM MONTH TO MONTH

The Ontario Medical Association, its past, present, and future, is interestingly set forth in an article in this issue by Dr. Adam H. Wright, the last surviving founder of that Association. It may be that the future of that Association is imperilled, and the membership should be vigilant in watching and investigating every movement of the self-appointed reformers.

This journal has not published anything in connection with the recent medical week in Hamilton. The reason lies in the fact that any Association, meeting there, has not furnished us with any papers or material to publish. Prior to the meeting we published several items calling attention thereto, and we had thought to give some space to a general *résumé* of the proceedings; but, unfortunately for Canadian medicine, the gentleman who was present to report the meeting tells us he had so much difficulty in even seeing a paper to make an abstract—access to them was totally denied him—that he finally gave up the quest for first-hand information and depended upon what he could gather in a section at any one time.

The profession should protest, as we protest, against using all the medical journals of Canada to advertise any meeting and then

leaving them in the lurch with regard to the actual supply of addresses, or copies, or papers. Surely the subscribers of the medical journals of Canada, who are members of the Associations, have some right to courteous treatment through the medium of the Canadian medical press.

Is the Intravenous Method of Treatment of Syphilis a Success? An editorial in the *New York Medical Journal*, August 17th, 1918, quotes statistics recently published with regard to the treatment of five hundred cases of syphilis in the Toronto General Hospital, in which ultimately but thirty-five cases presented a negative Wassermann. Who is to say but that subsequently some of that small number may yet even go back to their first love?

Apparently there is considerable doubt existing in the minds and experience of many physicians that the modern, intravenous method of treatment by the arsenical preparations is not all that it is cracked up to be, and should have authoritative investigation by some responsible body, such as the before-quoted editorial suggests, the Canadian Medical Association in Canada and the American Medical Association in the United States.

It is certainly rather uncomfortable to have to tell a patient when he questions you as to the certainty of a cure—Well, at the Toronto General Hospital, out of five hundred cases so treated, they got thirty-five cured so far as is known. Perhaps you may be one of a similar series. You pay your money and you take your chance!

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DIMINISHING DRUNKENNESS

The progressive development of the work of the Central Control Board (Liquor Traffic) is amply demonstrated in the fourth report of the Board, recently issued. About nineteen-twentieths of the population of Great Britain live in areas covered by the Board's operations. The effectiveness of the Board's orders in diminishing drunkenness and reducing to a minimum inefficiency that may be caused by drinking has long been generally recognized, and a mass of cumulative evidence is now available. Thus the commissioner of police of the metropolis has recorded that in 1913 the convictions for drunkenness in the metropolitan police district amounted to 64,617; in 1914 they amounted to 67,103; in 1917 they were 16,567. These figures relate to a population of over 7½ millions. The experienced superintendents who are in charge of the twenty-one divisions making up the police district attribute this decrease of 75 per cent. in the statistics of drunkenness to the operation of a variety of causes—namely, the working of the Liquor Central Control Board's orders with respect to restricted hours of sale, treating, and their restrictions on the sale of spirits, the diminution in alcoholic strength of those beverages, and also their greater cost to the consumer.

The figures of convictions for drunkenness show (1) that while public drunkenness had already by the end of 1916 reached a low level, which would have been thought incredible two years previously, there has since been a further substantial decline; (2) that this further decline occurred mainly in the earlier months of 1917; and (3) that a further improvement, though very slow and slight and not quite general, appears to be still in progress. Some of the occasional excessive drinking and danger to public order occurring in some localities in the last year has been traceable to the unevenness of the supplies of liquor, which, with the present means of distribution, naturally results from severe restrictions on the output. Under such conditions queues and "rush" drinking, with their attendant evils, tend to alternate with periods of drink-famine. With a view to mitigating the more undesirable consequences of acute shortage, the Board have recommended the general adoption of methods for the apportionment of the supplies of liquor and their retail sale which are designed to secure a more equitable distribution of supplies. The representatives of the licensed trade have responded to the Board's suggestions in the spirit in which they were made, and the Board hope that it will be recognized that the methods advocated are called for in the public



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interest to eke out supplies and to spread them as fairly and evenly as possible.

The Board point out that the Government inquiries into the causes of industrial unrest revealed no evidence that the restrictions imposed by the orders of the Board contributed, in Great Britain generally, to the unrest. Considerable unrest was reported from some areas, but this appeared to be entirely due to matters, such as the scarcity of beer or its quality or price, which had been in no way regulated by the Board. There are 750 industrial canteens open or being built at munition works, as against 570 in 1917. These cater for 990,000 employees. There are about sixty canteens at the principal docks. The total amount of the allowances from the earnings of controlled establishments which the Board have undertaken to recommend in respect of the provision of canteens is £1,505,980.

The report describes the progress made in those districts which are under the direct control of the Board. The publication of balance-sheets and profit and loss accounts is delayed by unavoidable causes; and the conditions in these areas are exceptional. Subject, however, to the reserve which these considerations compel, it may be conservatively estimated that, after meeting all the usual trading charges—that is to say, after providing for rents, repairs, license duty, rates and taxes (or contributions in lieu thereof), managerial and architectural staff, and depreciation on plant, furnishings, and utensils—the annual return on the total capital commitments of the Board's direct control undertakings has been on the scale of about 15 per cent. The primary object of the Board's direct control undertakings, however, is not pecuniary profit, but the proper control of the liquor traffic as an aid towards the successful prosecution of the war. At the end of the three years' work of the Board steady and continuous progress is still being made, though necessarily at a slower rate than in early days. The ground gained, including a reduction of public drunkenness to approximately one-quarter of its previous amount, leaves a relatively small margin for further improvement, but there are no signs of reaction. Whether the improvement achieved will be permanent or temporary depends on unknown factors, principally on future legislation and administration, but their experience suggests to the Board that there is no such inherent difficulty in the problem as to render impossible the permanent maintenance of the present level of sobriety. The decline in mortality directly or indirectly due to alcoholism is also dealt with in the report under notice, and is illustrated by the diagram we publish on p. 23.—*Medical Officer.*



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THE TYPICAL CHLOROTIC PICTURE is one that is quite familiar to every practitioner of experience—the peculiar pallor of the skin, the livid lips, the colorless conjunctiva, and the characteristic expression of anxiety. Add to this the hemic murmur or the venous hum, with the low percentage of hemoglobin, as shown by the hematologic test, and the diagnosis is not difficult. A rapidly acting blood builder is the “sine qua non” in such cases, and should be promptly ordered. It is important, however, that the hematinic prescribed should be free from irritant action upon the digestive mucosa, while, at the same time, quickly absorbable and assimilable. Pepto-Mangan (Gude) fully meets these requirements, and if given steadily and persistently will undoubtedly promptly revitalize the dehemoglobinized blood and thus restore vital resistance, color, strength and appetite. Fresh air, good food and general hygienic treatment is, of course, also indicated.

SEXUAL NEURASTHENIA.—Sexual Neurasthenia is an impoverishment of nerve force and without doubt prostatic disease in a large measure produces it. In this condition we may find a prolonged phosphaturia and oxaluria, which does not as a rule respond to a change in dietary or mineral acids. Therefore in a neurosis, where there exists a continued phosphaturia or oxaluria, and a condition of irritation in the genital tract, after eliminating the possibility of calculus, one must remember the prostate as being the factor to receive attention. To diagnose such a neurosis therapeutically administer sammetto in teaspoonful doses four times a day for a few weeks and at the end of that time one may not only know the cause but also the remedy.

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No. 4

Original Articles

THE MEDICAL TREATMENT OF GRAVES' DISEASE

BY HERMON C. GORDINIER, A.M., M.D., TROY, N.Y.
(Thera Gazette.)

Because of the brilliant therapeutic effect of thyroid feeding in overcoming both the adult and infantile type of myxedema and allied states of thyroidal insufficiency, the medical profession naturally have waited for long in anticipation of some equally brilliant discovery for the alleviation and cure of Graves' disease or exophthalmic goitre and other border-line conditions of heightened excitability of the whole sympathetic nervous system, the result of an altered hyperthyroidal secretion. Thus far, however, despite much clinical observation and laboratory research, no such specific therapeutic agent has been forthcoming. It is the lack of such special agent for the relief and cure of this disease that has caused so much distrust on the part of many physicians in regard to its medical treatment. It has developed in their minds an attitude of indifference or actual antipathy, and has created such a lack of interest or abstract carelessness toward the care and treatment of these unfortunate sufferers, that many of them have passed out of their hands into those of the charlatan, or thoroughly disheartened and discouraged, and broken in health, with extreme toxemia and cardiac insufficiency, they have sought as their last and only hope the relief that may possibly come from the knife of some daring surgeon, with results that too often reflect discredit on both surgery and medicine. As the late Dr. Musser tersely expressed it, "the surgeon is apt to do too much and the physician too little." That such pessimism exists is largely due to the conflicting statements, lack of method, and innumerable drugs, which have from time to time been recommended for the alleviation and cure of this affection.

We must remember, however, that this disease is so protean in its manifestations, so erratic and variable as to its course,

subject to so many spontaneous remissions and exacerbations, and whose natural tendency is either to recovery or death from toxemia and cardiac failure, or rarely to retrogression with thyroïdal wasting and hypoaçtivity with the production of myxedematous state, that it is difficult to correctly interpret the effects of medical treatment. Under similar conditions as to treatment, some cases rapidly improve, others remain stationary, while others fluctuate, steadily losing ground, and terminate fatally.

No greater nor more responsible duty confronts the general practitioner than to properly guide and treat the patient who suffers with Graves' disease. Each case should be thoroughly studied from every possible angle. He should be optimistic and at the same time inspire confidence, and in turn if possible exact absolute co-operation on the part of the patient. I know of no other condition where treatment is so dependent on individualization as it is in Graves' disease. Every effort should be made to recognize the disease early, and especially is this true of the early atypical forms in which many of the classic symptoms may be absent. He should be on the constant watch for the acute toxic cases which are so frequently passed unrecognized or are mistaken for some of the acute infectious diseases, such as typhoid fever, subacute endocarditis, acute toxic delirium, etc. Especially vigilant should he be to quickly recognize the acute toxic thyroid symptoms engrafted on the ordinary degenerative, cystic, or adenomatous type of goitre.

I want to emphasize the importance of making a careful search in every case of Graves' disease, typical or atypical, to discern whether a focal or systemic infection may be the primal causative factor exciting the thyroid to an active hypersecretion with the production of all the classical symptoms. It is interesting here to relate that Dr. W. G. Thompson, in reporting eighty cases of Graves' disease with acute thyroïdal intoxication, states there were 20 cases with acute tonsillitis or quinsy, a ratio of one to four, and ten other patients gave a history of repeated attacks of bronchitis, severe coughs and colds, la grippe and pneumonia. Cases with these minor infections were notably frequent among the febrile goitres, sixteen examples being noted in 43 cases. In many instances the tonsillitis either accompanied or shortly preceded the acute febrile toxic cases of Graves' disease. I have seen two typical cases of Graves' disease, each subject to repeated attacks of acute tonsillar infections, clinically cured after two years of observation with rest and the enucleation of the diseased tonsils.

Six years ago I saw in consultation a boy nine years of age, with acute thyroïdal intoxication appearing during the course of

a severe scarlet fever infection. He was extremely toxic, had a marked fine tremor of his extremities, a very rapid, feeble, but regular pulse at the rate of 160, and a temperature of 105 deg.; he was delirious, had distinct exophthalmos, and an enlarged, soft, elastic, very vascular thyroid, over which was heard a continuous humming-top sound, and a soft systolic bruit. His condition seemed very grave. The use of the Beebe serum was considered, but because of the severe scarlet fever infection it was deemed unwise to administer it. However, with the intermittent local use of ice both to the thyroid gland and precordium, together with elimination and absolute rest, he gradually improved, and in the course of three months all manifestations of the hyperthyroidism had disappeared. Recently I saw his physician, who states that the body has remained perfectly well and shows no exophthalmos, thyroid swelling, or tachycardia. This case seems definitely to prove that a general toxemia from an acute infection may excite acute pathologic changes in the thyroid gland with hypersecretion and the production of the Basedow symptom-complex.

It is because of the above mentioned cases and the numerous instances recorded in the literature where focal or general infections seem to be responsible for the initiation of grave toxic thyroidal states that I deem it very essential in every case of Graves' disease, typical or atypical, to locate and eradicate by surgical or medical means any type of local or general infections, such as pyorrhea, diseased tonsils and adenoids, sinus, middle-ear and mastoid infections, gonorrheal or other infectious arthritides, tubal disease, gall-bladder or appendicular infections, constipation, colonic stasis, etc. A number of cases of Graves' disease are recorded in which a complete cure has resulted from the relief of such infections. It is interesting here to note that J. W. Vaughan states that Dr. Morse was able to cultivate by the Rosenow method from the thyroid glands removed from two typical cases of Graves' disease the streptococcus viridans.

With these facts in mind it is necessary again to emphasize that one of the most essential points in the successful treatment of exophthalmic goitre is the removal of all sources of infection either focal or general.

The most rational therapeutic means at our command in the alleviation and cure of Graves' disease is rest both physical and mental, so as to secure tranquillity of the mind and perfect rest of the body, the type of enforced rest so long ago successfully instituted by the late Dr. S. Weir Mitchell in the treatment of neurasthenia and the group of mild psychoses. In addition thereto I would enjoin exposure to abundance of open fresh air and

sunshine in a dry salubrious climate at a moderate elevation—such a type of rest cure as we are accustomed to advise our patients with early active tuberculosis; whether with such cure should be associated partial or strict isolation is largely dependent upon the social status of the patient, and the type and severity of the nervous and cardiac manifestations. One of the requisites in properly carrying out a strict rest and isolation cure is to have the co-operation of an intelligent, cheerful, and optimistic nurse, both resourceful and with good judgment, and one, if possible, who has had considerable experience with nervous patients. It is remarkable what a calmative and soothing effect such a nurse may have in these cases. Whether the rest cure should be undertaken at home in the quietest room in the house and as far away from the family as possible, or at a well-conducted hospital or sanatorium, is a debatable question and should be decided on the merits on each case. Personally, while I have treated several cases successfully at home, I am convinced that in most instances the results obtained are much better in a hospital where every facility is at hand for properly carrying out the treatment. The time is not far distant when every hospital will have metabolic wards attached where the results of the rest cure, hygienic and other methods may be controlled by the study in each case of the basal metabolism.

The probable length of time the patient should rest can only be determined by the type of case, the severity of the toxemia, and the symptoms relating to the cardiovascular and nervous systems. The rest cure should not be too lightly or indifferently undertaken. It should be carried out in a most systematic manner, and it is my judgment that but few patients should be treated in an ambulatory fashion. In order to gain the confidence of the patient it is wise to acquaint him with all the facts of the case and to state explicitly, if possible, the probable length of time it may take to effect a cure, whether several weeks or months. One cannot too strongly emphasize the value of bed rest and other hygienic measures in the care of the early manifestations of this disease, for it is the consensus of opinion of internists that with this treatment most of the early cases are permanently cured, whereas without proper rest these cases may become progressively worse and often lapse into the most serious types of the disease. It is therefore our duty to make the same effort to recognize the early or incipient case of Graves' disease as it is to recognize a case of incipient tuberculosis. These border-line or early cases usually show vasomotor instability, slight or great nervous excitability, easily fatigued, slight or rapid weight loss and persistent tachycardia, with constant or occasional vascular excitability, throbbing

of the large vessels and especially of the abdominal aorta, or moderate increase in size of the thyroid gland over which thrills are felt and vascular murmurs are usually heard, or the gland may not be visible or palpably enlarged. The exophthalmos and associated ocular manifestations are often missed, while a delicate fine tremor of the upper extremities is a very early symptom. A definite, rather general falling out of the hair of the scalp is often observed very early in these cases, and is of considerable diagnostic value. These cases oftentimes have a slight elevation of temperature toward late afternoon or evening and are often subject to severe sweating. The detection of a capillary pulse or, with the ophthalmoscope, the discovery of pulsation of the retinal vessels may also be helpful in the diagnosis.

Riesman's sign, a soft systolic murmur heard over the eyeballs with the lids closed, is present in a goodly number of cases, but owing to the spastic condition of the eyelids and the resulting loud muscular sounds thus produced it is often overlooked.

Patchy or diffuse pigmentation of the skin, while it may occur early, is most often observed in the more chronic or advanced cases. This pigmentation may be so marked that it closely resembles that of Addison's disease; it is possible that it may have as its cause an associated suprarenal insufficiency.

Goetsch has showed that the percutaneous injection of a minim of 1-to-4000 solution of adrenalin chloride will in Graves' disease show a very prompt skin reaction, a large urticaria-like wheal. Such a reaction may also be present in extremely nervous individuals. The real diagnostic value of the test is its negativity. I have tried this test recently in ten cases at the Samaritan Hospital, both mild and severe, and have always found the reaction positive. A test said to be of a far greater diagnostic value is the subcutaneous injection of 7 minims of a 1-to-1000 solution of adrenalin chloride, when if hyperthyroidism is present all the symptoms are quickly exaggerated, and characteristic blood-pressure changes are induced. Löewi's adrenalin mydriasis test is an early diagnostic sign of value. A careful white-cell count is also of value as first pointed out by Kocher, showing in the early cases a leucopenia, with a diminution of the polymorphonuclears and a decided mononucleosis. The coagulability of the blood is nearly always somewhat delayed.

The best guide as to the length of the stay in bed is the stability of the nervous system and the condition of the pulse. If after rest the nervous system becomes calm and the pulse rhythmic, with a rate of just above the normal and remains so with but slight fluctuations, the appetite good and the weight loss ceases,

or there is an actual gain, she then may be permitted to rest for an hour or two on the sofa or in a comfortable chair, or if weather conditions permit out-of-doors in a hammock, and later be allowed to walk about the room, corridor, or veranda, short of being fatigued or suffering from palpitation. Stair-climbing should be interdicted for a long time, and especially is this true with cases showing myocardial insufficiency. It is unnecessary to go more into detail with regard to rest, both in the mild and severe cases of Graves' disease; its value is recognized alike by the internist, neurologist, and conservative surgeon.

It is interesting here to note that the statistical study of Hale White is strongly corroborative of the great value of rest in this disease, for he states from his study that 50 per cent. of the cases were cured by medical means—that is, rest and other hygienic measures—and 50 per cent. of these remained permanently cured.

McCarrison in his recent work on the thyroid gland states that with rest and medical means in 3,523 cases so treated and recorded in the literature, recovery occurred in a little over 5 per cent.; in nearly 38.5 per cent. of cases the condition was alleviated or became chronic; while death resulted in 11.8 per cent.

MacKenzie's and Musser's statistics are equally corroborative.

DuBois has found working with the Sage calorimeter that the increase in metabolism is equalled in no other disease, and is strictly proportional to the severity of the clinical symptoms. With rest alone in cases observed at the Bellevue Hospital he found a fall in metabolism from 10 to 15 per cent., and he regards rest as one of the most important means to alleviate and cure this disease.

In conjunction with rest the question of feeding is of great importance in the treatment of Graves' disease. Considerable difference of opinion, however, exists as to the amount and kind of food necessary. Most sufferers with Graves' disease are thin, and curiously enough we rarely encounter one that is fat except in the young. The degree of emaciation is dependent upon the severity of the symptoms. In mild cases the loss of weight is usually but slight, whereas in the severe toxic cases, and particularly in those who suffer with severe periodic attacks of diarrhea, the emaciation is often extreme. The weight loss is due to the rapid oxidation of the body tissues from the increased metabolic activity, the result of the hyperthyroidal secretion, as is shown by the enormously increased gaseous exchange and nitrogen elimination. Our endeavor should be to repair the loss and increase the body weight by increasing the caloric value of the foodstuffs

administered. It has been my custom to allow plenty of milk, cream, butter and all milk products, bread, toast, eggs, cereals, rice and other carbohydrates and fats, green vegetables and fruits, and, except in severe toxic cases, fish, chicken, lamb, and beef, in strict moderation, and pure soft water always in abundance to aid elimination; all stimulants, tobacco, tea, coffee and spices, pickles, and most acids should not be allowed.

DuBois' work with the calorimeter proves that the specific dynamic action of proteins and carbohydrates in exophthalmic goitre patients is now appreciably different from the normal, and that there is no significant difference between the effect of meat and same amount of protein in milk and eggs. He states that the protein ratio in these cases should contain from about 12 to 15 grammes of nitrogen a day, which is the amount ordinarily consumed. Despite these experiments I believe animal protein should be given sparingly, and in the extremely toxic cases should for a time be absolutely stopped, for we know that in excess they produce an increased thyroidal secretion.

In connection with proper feeding it is necessary to emphasize the importance of perfect elimination through the bowels; a daily evacuation is very essential. This may be secured with proper diet and plenty of water, or it may be requisite to have recourse to laxative drugs, enemas, and colonic irrigation. An occasional blue pill or a dose of castor oil is oftentimes a very wise measure in those of constipated habit. I have found sodium phosphate given before breakfast a valuable means to correct the mild forms of constipation in this disease.

Medicinal treatment is uncertain in its results. Drugs that have done good in some cases have proved ineffectual in others. To attempt to enumerate the various drugs which have been recommended for the alleviation and cure of this affection would be a useless task. I have made use of many of them, and while perhaps benefit slight or great has come from some of them, it has always been questionable whether rest, proper feeding, and other hygienic measures were not alone responsible. I would, however, like to emphasize strongly the value of the neutral hydrobromide of quinine in conjunction with the rest in the treatment of this affection. The use of this drug was suggested by the late Dr. Forchheimer of Cincinnati. It has been my custom to use it in capsules of from 3 to 5 grains, three or four times daily, and to continue this dose until tinnitus occurs, and then reducing the amount just short of this physiological effect. The secret of success in its use is to continue it over a long period of time.

months or years, with an occasional interruption only. When the symptoms are under control it is wise to decrease the dose to one or two capsules a day, or perhaps to give the same dose but once or twice a week. Usually within a few weeks one notices a lessening of most of the symptoms; especially is this true of the tachycardia, the nervous and vasomotor instability, and the tremor; the thyroid frequently becomes by actual measurement decreased in size; the exophthalmos, however, is the last symptom to disappear.

Forchheimer states that he has treated 71 cases with but six failures—that is, 82 per cent. were cured.

Jackson and Mead of Boston found that of 56 cases treated at the Massachusetts General Hospital with this drug and under observation for three to nine years, 76 per cent. had no signs of symptoms for two years, while 13 per cent. had been benefited and only 11 per cent. were failures. They suggest that the drug may calm the over-stimulated sympathetic nervous system and thus put an end to its stimulation of the thyroid gland and the vicious circle thus created.

Huchard suggests that it acts as a tonic to the heart and that it has vasoconstrictor and vague inhibitory effects. Phosphorus is another drug with which I have had considerable experience, and can speak strongly in favor of its use in the treatment of this disease, if administered in freshly prepared pills of from 1-100 to 1-25 of a grain thrice daily, over a long period of time. It has had in my hands a salutary effect in the relief and cure of these cases, and especially those that develop in early adult life; it is quite remarkable what a tolerance for the drug these patients have. I have frequently given phosphorus with short periods of interruption for a year or two without the slightest unpleasant consequence. I have watched for four years six typical cases of exophthalmic goitre treated with phosphorus, which at present have no signs of the disease. It is interesting in this connection to note that Köcher lauds very highly large doses of sodium phosphate, given three or four times a day for the treatment of this disease. He believes that it acts as a direct antidote to the iodine-containing substance of the thyroid gland.

Although drugs of the digitalis group are constantly in use in an effort to reduce the cardiac rate, in my hands they have as constantly failed, and I have found them only of avail in the treatment of the cardiac insufficiencies and associated arrhythmias of the later stages of this disease. In the early stages of the disease, before myocardial insufficiency occurs, rest and the local inter-

mittent application of cold both to the thyroid gland and precordium by means of the ice-bag or Leiter's coil has had the most tranquilizing effect in reducing the pulse-rate of any means that I have employed.

In my early practice I used at one time for this same purpose increasing doses of tincture *strophanthus* continued over a long period of time, and while in a few cases good results occurred, for the most part its effects were disappointing. For the nervous excitability and insomnia I have found the hydrobromide of quinine most useful and have rarely been obliged to use hypnotics or opiates. The occasional use of large doses of bromides at night is perfectly justifiable, but I want to deprecate their continuous use, and I would also add a word of warning about the use of opium or its alkaloids unless for some very special purpose. *Validol*, although now off the market, has worked very well in some cases to relieve the nervous erethism and induce sleep. A cleansing bath each morning followed by one or more cold ablutions, or a cold salt rub with gentle friction, are comforting, and oftentimes a warm bath at night will induce sleep. While the patient is undergoing the rest cure general gentle massage is of considerable value.

My experience with electricity in this disease, while limited to the application of galvanism to the cervical sympathetic and the use of faradism after the method of Vigoroux and Chareot, has shown no permanent improvement in the few cases in which it has been systematically employed. Some years ago while working in a large neurological clinic at Boston I had the opportunity of watching the effect of the static wave current on perhaps a dozen ambulatory cases of Basedow's disease, and although absolutely unbiassed I could see no definite signs of improvement in any of them. It has seemed to me that electricity was valuable in this disease only from the standpoint of autosuggestion.

There seems to be no unanimity of opinion in regard to the value of the various glandular products of the specific sera in the treatment of Graves' disease. By some physicians they are highly extolled, whereas others regard them of no special value. In an experience extending over a number of years I have had occasion to use in a considerable number of cases the various ductless gland products as well as thyroidectin and thyreolytic serum of Beebe and Rogers, and while excellent results have occurred in a few cases, I have been impressed with the fact that perhaps rest and other hygienic measures may have been in large part responsible.

Hoppe because of the intimate relations between the function of the thyroid gland and ovaries, and assuming a hypoactivity of the ovaries in Graves' disease, has administered corpus luteum to about twenty cases of Graves' disease with most gratifying results.

I have had no personal experience with Roentgen therapy in this disease. Judging, however, from a study of the recent literature, experienced observers regard radiation as being a real therapeutic achievement in the treatment of Basedow's disease. They state that the pulse-rate is nearly always slowed, the tremor and nervous system improved from the start, the gland rapidly diminished in size in many cases, the throbbing and vascularity are greatly lessened, and the gland becomes much softer in consistency. The body weight practically always increases. Falta in his work states that he has witnessed good results from radiation in several cases, in which there followed disappearance of the glycosuria, diarrhea, and tremor, and an increase in weight.

Schwartz, from the first medical clinic at Vienna, has reported forty cases in all of which after radiation the nervous symptoms have disappeared, and the tachycardia in all but a few cases. Two-thirds of his cases showed gain in weight, one-half of the cases showed regression of the exophthalmos, and in one-third of the cases the gland was decreased in size. Waters, of Hopkins, in 1915 reported 16 patients who received 18 treatments with eight cures and seven markedly improved, and only one failure.

Stoney reports 41 cases with 14 cured and 22 much improved.

Fischer reports twelve cases cured for over two years and four improved.

The advantages which this treatment possesses, according to Malcolm Seymour, may be summarized as follows: First, no fatalities; second, no resulting scars; third, no interference with the patient's occupation; fourth, it is painless and causes no inconvenience, and if unsuccessful an operation may be done with less risk because of the very favorable action of the rays on the associated enlargement of the thymus gland and the reduction of the vascularity of the thyroid. He states that the treatment should be undertaken only by those thoroughly experienced in Roentgen therapy. The dose should be most accurately measured. If used in a haphazard and unscientific manner, serious or total atrophy of the gland may result with the production of myxedema, such cases having been reported in the literature.

The following conclusions may be presented:

1. If recognized early most of the mild or incipient cases are curable by prolonged rest, hygienic and medical means.

2. Fifty per cent. of the more advanced cases are curable by the same methods.

3. All cases that have undergone for a reasonable length of time careful medical treatment, and have shown no improvement or have progressed or present pressure symptoms, should be placed at once in the care of the experienced surgeon skilled in thyroid work.

4. Cases showing myocardial insufficiency or serious arrhythmias, as alternation, fibrillation, or flutter, should be treated medically.

5. X-ray pictures of the chest should be taken to discover extraneously placed, accessory or dipped thyroids, and to determine the size of thymus gland.

6. Success in treatment in each case depends on careful individualization.

7. The ideal treatment of Graves' disease is enforced therapeutic rest.

BREATHE RIGHT AND LIVE

First take note of inspiration, the pause, expiration! These are the three parts of the respiratory act. The mouth must be closed and the current of air drawn in through the nose and emitted through the same channel. Practice deep breathing by gradually beginning with a little more time to the drawing-in act, and so increasing it. By so doing you do not disarrange the action of the heart, do not exhaust muscles, do not interfere with any other nerve action. Time your breathing regularly and see that it is easy and rhythmical. How many of us pay any attention at all to our breathing, though correct breathing is the dynamo of life. Man must get proper oxygen content in his blood and must also cast off the waste carbonic acid gas. Then make your inspiration and your expiration of the same length; or as it has been aptly put: count three for inspiration, three for expiration, pause two. How often are you to practise deep breathing? Three to five minutes four or five times a day—and continue it through life. Never forget it any day you live! Practice is best in the good open air, either sitting or standing, but before an open window will partly suffice though not so good. As time goes on you may lengthen the count to four, four, three. Stand erect, shoulders back, spine straight; or, if sitting, similar posture. In people who are not up to tone, in asthmatics, bronchitics, flat-chested, threatened with consumption—weak-lunged—even in incipient tuberculosis deep, rhythmical breathing promises much, if not continued, relief.

SOMETHING OFFICIAL ABOUT ALCOHOL

The Advisory Committee of the Central Control Board of England, a special department established to deal with the liquor traffic under the Defence of the Realm Act, have formulated these conclusions, which are as definite and positive as present scientific knowledge can go:

1. Alcohol is undoubtedly a food, in the sense that its combustion in the body can supply a considerable part of the energy needed by the organism.

2. Unlike other foodstuffs, it cannot be stored in the system in altered form, to be used as required, but remains as alcohol in the blood and the tissues, on which, if present in excessive amount and over prolonged periods of time, it exercises a deleterious influence.

3. By reason of this latter characteristic alcohol cannot safely be used as a large element in the diet without risk of injury to health, and it is on this account, and also because of its disturbing effect on nervous functions, quite unsuitable as a staple food for industrial workers.

4. Its action on the nervous system, which is the chief *raison d'être* of the ordinary use of the alcoholic beverages, in health and in disease is, with the possible exception of its effect on the respiratory centre (in the brain), essentially narcotic and not stimulant.

5. The moderate use of alcohol by the average normal adult is physiologically unobjectionable, provided that it is limited to the consumption of beverages of adequate dilution, taken at sufficient intervals of time to prevent a persistent deleterious action on the tissues.

HAVE YOU A SORE ON YOUR FACE?

If you are forty years of age and have a sore on your face for two or three months, whether it has been treated or not, it is dangerous to your life to wait any longer to see whether it is going to get better of itself, or by the remedies applied to it. Most physicians are now in possession of the knowledge that radium easily and quickly cures these conditions,—sometimes x-rays—and with but very little pain—and in the vast majority of cases they remain cured. It is the two or three months' sore, whether scab, ulcer, crust, crack, wart, mole, which has become active, that develops cancer in the face. The cancer may be slow in growth, or may make it fast, but it is sure to end in disaster. Take time by the forelock and ask for radium treatment.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

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No. 4

COMMENT FROM MONTH TO MONTH

Dehydration of Food as a Means of Conservation.—

Food must be conserved in every way possible. This is obvious. If our soldiers and the soldiers of our Allies are not well fed they cannot fight effectively, and therefore may not win. The conservation of food is a most, if not the most, important factor in the winning of the war. In the first instance, it goes without saying that thrift in the use of food must be exercised by all. In this connection, however, it is appropriate to point out that, although it is eminently fitting that regulations as to the economical use of foodstuffs should be laid down and rigidly adhered to, it is not in the proper order of things that those who deal in food materials should amass large and even enormous profits by the aid of these very regulations. For example, a regulation is sent out that a certain article of diet should be economized. The individual who keeps a restaurant gives his customers less of this article, but charges the same, and frequently more, than previously. Certainly saving is effected, but it is at the expense of the consumer and to the profit of the restaurant-keeper, who is, more often than not, at any rate in Toronto, an alien. This is a matter that should be looked into and steps should be taken to so regulate

the question that the Canadian is not mulcted of his earnings, to the advantage of the restaurant proprietor, who, as said before, is, in many cases, not of Canadian birth or descent. It may be stated *en passant* that in the United States special attention is now being focussed on "the ways that are dark and tricks that are vain" of keepers of eating houses. The Federal authorities have requested that persons who think that the charge for an article of food is unduly high, should communicate with such authorities, when a strict scrutiny will be held.

The above is a digression from the subject in hand, that of dehydration, but as it is of very considerable importance to the general public, and is, moreover, one that requires thorough ventilation and discussion, no apology is needed for dragging in a somewhat extraneous matter.

As for dehydration, regarded from the standpoint of food economy, it remains to be said that, while in many respects the process is as old as the immemorial hills, it has leaped into prominence since the beginning of the war. There is no space in an editorial to dwell upon the ancient method of conserving food by sun drying. Suffice it to say that it answered its purpose in its day and that, at the present time, many berries and certain fruits are best preserved by sun drying, when done carefully and under favorable conditions.

Scientific dehydration is an absolutely modern process, and it is claimed for the method in the case of vegetables and of some fruits to be the most satisfactory and certain means of preserving these for an indefinite length of time, while at the same time it does not injure nor detract from their nutritive properties. It must be borne in mind that when an article of food is desiccated, that is moisture expressed, decay is arrested and if its nutritive properties can be also retained, it would seem to be the ideal mode of preserving food and thus conserving the food supply.

Most of the methods for dehydrating food in vogue up to quite recent times have been by the agency of heat. This certainly removed the moisture, but it likewise removed desirable volatile ingredients, and, what was of greater importance, destroyed or injured the vitamine element. The latest means of dehydration

overcome many of these difficulties by the device of dessication at a comparatively low temperature either in a vacuum or in a current of air.

The advantage and limitations then of dehydration of food may be formulated as follows. It is best adapted for vegetables and fruits, as meats when dried lose, to a considerable extent, their natural flavor. It is most especially adapted for vegetables. One reason why dehydration of vegetables is particularly applicable to the conservation of food is that because when it has undergone the process, it cannot only be kept indefinitely but on account of its remarkably small bulk can be easily transported. Consequently by dehydration an immense amount of waste of vegetables may be avoided. Furthermore, in the present juncture, when ships are lamentably scarce, it is self-evident that dehydrated vegetables, which take up a twentieth perhaps of the space even of canned vegetables, are especially well adapted for transport across the Atlantic. The French for some time have recognized this fact, and import large quantities of dehydrated vegetables from this country and the States for the use of their armies.

All vegetables, legumes and corn, according to well authenticated accounts, can be successfully dehydrated, and the majority of them retain their essential nutritive properties after undergoing the process. Milk also lends itself well to dessication.

From many points of view dehydration applied to those foods which have been demonstrated to be best suited to the method, appears to be an economic measure of the highest value and it may be recommended with a good deal of confidence to the consideration of our food authorities and to the attention of the Canadian medical profession. An excellent paper on the subject was contributed to the special food number of *American Medicine*, published in July last, by Major W. E. Fitch, M.D., M.R.C., U.S.A., while ample and detailed information concerning this means of conserving the food supply is contained in Dietotherapy, partly written and edited by Major Fitch.

News Items

Spanish Influenza has made its appearance in Ontario.

Colonel Lorne Drum is said to be the new Commanding Officer of McGill Hospital in France.

Vancouver General Hospital in the last five years shows increased population from 212 patients and staff of 150, to 1,200 patients and staff of 540.

Dr. George M. Murphy, Halifax, N.S., was elected President of the Nova Scotia Medical Society; Dr. J. R. Corston, re-elected Secretary-Treasurer, Halifax.

Dry Island, near Morrisburg, Ontario, owned by Mr. J. W. Corrigan, a New York millionaire, will likely be accepted by the Department of Militia for use for convalescent soldiers.

Lieut.-Colonel Ernest Raymond Selby, Bradford, Ont., is reported a casualty for the second time, having been previously wounded at the Somme. He was mentioned in despatches in June last.

Dr. Harry B. Anderson, Toronto, has been appointed by the Hon. Dr. H. J. Cody, Minister of Education in Ontario, Chief Medical Referee of the Ontario Branch of the Inspectors' and Teachers' Superannuation Fund Commission.

The death is announced of Dr. Hugh Lang, Granton, Ont., at 72 years of age; Lieut. L. F. Jamieson, Parry Sound, at the age of 34, serving with the R.A.M.C. in Palestine; Dr. Thomas Simpson, in his 85th year, Montreal; Dr. Tanerede Fortier, Beauce Co., Quebec; Dr. W. M. Bruce, 66 years, Toronto; Dr. Colim McLarty, St. Thomas, Ont., 69 years; Dr. J. Milton Cotton, Toronto, 58 years.

Lieut.-Col. C. S. McVicar, who returned from overseas recently after three years' service, has been appointed senior physician at the Spadina Military Hospital. It was with the University Hospital that he went to Saloniki, and after leave last year he was appointed in charge of a department at the Ontario Government Hospital at Orpington, England.

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Montreal

The name of Lient.-Col. L. E. W. Irving, D.S.O., of Hamilton, is being mentioned as the successor to Lient.-Col. E. S. Ryerson, who is shortly vacating the post of Assistant Director of Medical Services in this district. Col. Irving served in South Africa with the Royal Canadian Field Artillery, and it was here he won the D.S.O. and was mentioned in despatches. In the present war he went over with the 15th Battery and was for some time in charge of the Epsom Hospital, England.

The following Canadian Army Medical Corps officers from the Toronto Military District have been warned for an early departure overseas: Captains G. S. Foulds, H. W. Baker, O. R. Mabce, W. L. Robinson, N. W. T. McLaurin, F. R. Smith, H. R. Adams, J. F. Hazelwood, E. C. Pugh, G. D. McTaggart, J. L. Poirier, C. V. Bailey, S. W. Otton, W. H. Avery, H. E. V. Duffett, N. M. McNeill, W. W. Buttle, W. C. Allison, H. N. Greaves, H. B. Freel, H. C. Hagyard, R. L. Morrison, A. E. Naylor, A. H. Naylor, A. W. Gregory, B. Hanna, D. M. Baker; Lieuts. J. P. Fawcett, L. G. Hillier, E. C. Riseborough, W. H. Batten, J. C. Copp, J. R. L. Eede, G. H. Agnew, D. M. Low, W. Harris, C. C. Brown, J. W. Leach, B. Cohen, L. Wagner, C. A. Findlay, J. D. Maedonald, W. A. S. Geddes, R. B. Kennedy, J. W. Sinclair, J. M. Robertson, E. G. Coulson.

In charge of the party of doctors will be Capt. G. S. Foulds. It has been Major Foulds, but he has reverted in rank to get overseas. He has been for some time in the office of Lient.-Col. E. S. Ryerson, A.D.M.S.

HOW TO CURE YOUR FLAT FEET

A noted New York surgeon who has had many years' experience in treating flat feet and curing them advises regular, persistent bending of the toes downward with the hands so as to loosen up the joints between the toes and the balance of the foot proper. The toes should also be systematically drawn apart, one from the other, as far as possible without stretching too much. During these manœuvres the foot is best placed at rest on a foot-stool, or stair-step, or low surface which would permit of the toes being bent down to even a right angle as the manipulation permits of it. By practice you should soon be able to bend the toes spontaneously to touch the perpendicular part of the stair below. The cure may take a few month's daily practice supplemented with efforts to bend without the use of the hands; but if you want to heighten your instep patience will reward your labors.



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THE DECAYED TOOTH

What a blessing to mankind if only some one could tell us how to prevent the decay of teeth! Even in these decadent days there is here and there an individual who has escaped the dentists' hands throughout a long life. Their teeth have simply not rotted. A whole host of troubles—quite truly recognized for generations—have been aggravated and multiplied in the body physical by modern dentistry. The dentists, as well as physicians, have led off in finding this out, but the public have paid the shot.

The names of the diseases which can now be traced to decayed teeth, pyorrhea (a knowledge of which is in the possession of almost every schoolboy), bridge work, killed or chilled nerves, minute and blind abscesses at the apex or roots of teeth, crowns, even pivot teeth, run the gamut from Do to Do, from a small bald spot on the crown of the head to wee clumps of blisters between or under the toes. Scarcely any internal organ or tissue has escaped.

Formerly, before scientific dentistry bit its way into decayed pockets, and other pockets, toothache was the indication for extraction. Are we going to return to that primordial existence? Will the public dislike parting with the dentist as they dislike parting with their teeth? Perhaps evolution is working through changed dietary brought about by war conditions!

Thorough mastication, practising Gladstone's habit of thirty-two grinding mastications for each morsel of food—something like Fletcherism, giving every tooth in the jaws equal chance—should be the dental religion of every person. Combine with that careful cleansing in the morning after arising, after each meal, and again before retiring—for night is the time when our dental enemies of the germ family get in their best work, loving to carry on in the dark—and we have practised the best preventive yet recognized by either dental or medical science. Bite on that regularly and hard!

HELPING THE RETURNED SOLDIER WITH FEIGNED DISEASE

Some American soldiers are sure to return with feigned disease of some character or other—feigned paralysis, feigned pain, even feigned blindness, conditions purely born in the mind. Here is a problem which the public must assist physicians in mastering. It is the case of the soldier putting one over the medical officer, if he can, to escape duty. Sometimes there is a general trembling, a mere limp; again, paralysis of both lower limbs; mutism; pain



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in the back, prohibiting standing upright. These feigned disabilities may even appear in epidemics. One significant point is that no physical injury is ever found; nor even to the most astute nerve specialist, in full command of all apparatus known to medical science, can any of the recognized symptoms of the particular trouble be elicited. They are practically due to suggestion on the mind of the feigning sufferer.

A case in point will illustrate: A certain private was admitted to hospital with blindness—both eyes. In addition there was paralysis of the left arm and weakness of the leg on that side. He stated he had had all these troubles for six months. He also said he had been buried: that his prior occupation before becoming a soldier was medical student. He was examined carefully upon entering the hospital, and no evidence found of an organic trouble. The suspicion of the medical officer was aroused, and on further talk with the sufferer, he suddenly exclaimed "Oh!" and immediately regained his sight. Power as suddenly appeared restored in both leg and arm. Then he fell in love but his attentions were spurned by the lady of his choice, and he returned to the examination room quite blind again—but then love is always said to be blind. It subsequently turned out he was not a medical student and that his story was a fabrication. In other words, men have become startled by an idea and lose control of themselves.

The problem is to restore these men so that they do not become a charge on the pension list of the State. Americans and Canadians are interested in securing as good success in rightly treating them as the French and British, where, through special hospitals, this class is rapidly disappearing. They are returned whole either to the army or to civic life, and are not a charge on the State for all time. The need of special hospitals, therefore, on this side of the Atlantic is imperative, special hospitals where they can be segregated immediately on arrival from overseas, and where they come immediately under supervision of specially trained physicians, and where, if relapses supervene, they may be immediately returned for further treatment. Public-spirited citizens are vitally interested in this class of soldier in a double sense: For his own betterment; for the likelihood of degenerating and gravitating into the lower grades of society.

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TORONTO, NOVEMBER, 1918

No. 5

Original Articles

ASSESSING THE VALUE OF SYMPTOMS*

By SIR JAMES MacKENZIE, M.D., LONDON, ENGLAND.

Delivered before the American Association of Industrial Physicians and Surgeons,
Chicago, Ill., June 10th, 1918.

It is almost like a piece of impertinence for me to "butt in" in a meeting like this; but there is one section of the community to which I have belonged, and I gather that this more nearly approaches my ideal of what a medical body should consist of than any other. Therefore I offered my services, because I have had considerable experience in the matters with which you have to deal, in this sense: That the greater part of my life—for thirty years, at all events—was spent in an industrial community, in which I was brought into intimate contact with all forms of industrial diseases and accidents, and while I have no doubt that your programme, as I heard it read yesterday, is a perfectly correct one and, carried out, will be of the very greatest benefit, yet there is something beyond, something which you can do—something, in fact, which you are the only people who can do—for the advancement of medicine as a whole, and not merely dealing with this limited question. On that account, I have come to lay before you some of the views forced on me by my work in general practice.

You see, if we allow the matter to take not only a patriotic but a sort of allied trend, I would like to say that it has been a great distress to me for many years to see how medicine is being diverted out of the true and proper direction. Medicine, like all other sciences, is evolved from a stage of darkness, in which superstition and credulity prevail. You go back to the history of astronomy or chemistry, and you find a stage in which astrologers and alchemists flourished. These other two are now accurate sciences, but medicine has not yet reached that stage. It is back

* "Medical Standard."

where chemistry and astronomy were, say five hundred years ago. We know perfectly well how much there is of credulity and superstition in even our most recent teaching. Even in this country, you, with your new schools, are putting the children into schools like those existing in the dark ages. You have learned from European nations certain lines of teaching, and have adopted and modified them; but if you take from the older continent the torch of light, you also bring with it the shadow of superstition. Although you think it is clearest science, it is often tinged by some shadow that you do not realize; so that the fount of knowledge is fouled at the very source. This you will realize, as I go on; but you can readily see that there is bound to be difficulty in knowing which way we should go. Is medicine progressing along the right path?

In the last forty years, what I call laboratoryism has dominated medicine completely. Now if any man has anything the matter with him, he is supposed to be examined by laboratory methods; and the physician wrings his hands and says, "Clinical medicine can make no advance until the laboratory gives us some new methods." I have heard some of our greatest physicians say that clinical medicine has made its extreme of advance until laboratory methods have been involved. I say, medicine has not been studied scientifically. A beginning has not been made. This may seem an extravagant statement; but when you look closely, you will see that it is perfectly true.

When I come to a town such as this or any other abroad, as in France, Italy or Germany, I am always taken to the pathological laboratory and shown dead specimens with wonderful staining; or I am taken to the bacteriological laboratory and shown the growth of different microbes on different foods; or I am taken to the ward, and shown the signs of disease with X-ray photographs of the different complaints. Now, if I say I want to see these diseases, not at this stage, but in the very early stage, when they begin their deadly work, they say, "No one knows anything about that." It is when the disease has made the man hopelessly ill, that they study it with a minuteness and care that leaves nothing to be desired; but in the beginning stage, when the disease is curable, nothing is done, or what is done is left in the hands of whom? Look at the out-patient department, when the patients are in the early stage of disease, when the disease is most difficult to detect, when it requires the greatest knowledge to perceive it, and when it is most hopeful for treatment; and who has charge of it? The youth without any knowledge. Time after time I have sat in the out-patient department and seen a man come up and say, "I am

ill." They say, "What is the matter?" They look him over, and see no physical sign. They give him a bottle of medicine, and tell him to come back later. When he develops a physical sign, he is sent to the ward and treated by wonderful laboratory methods, until the disease ceases to interest them; but there have been no steps taken to study the early stages of the disease.

Now how is it that you industrial physicians come into this matter? I was a general practitioner, and was educated at Edinburgh University, where they do the work very thoroughly according to present-day theories. I went into practice, and the cases that I saw were not the cases that I had seen in hospital practice. These people, nine or ten, came with vague complaints. I could not make out what the complaints were, and thought this was due to my own ignorance, and that it was because I did not understand the complaints; but I imagined that if my teacher had been there, he would have been able to tell me what the matter was. Consequently, I looked around and tried to improve myself; and it gradually dawned on me that the knowledge that we want, as general practitioners, does not exist. As my studies went on, I found that we were ignorant of the simplest elements connected with disease. For instance, disease is made manifest to us by the presence of symptoms—this is the only way that we have to detect it. When you come to the study of symptoms, you discover that there is not a single symptom which the body can give rise to that we know thoroughly and scientifically, understanding the mechanism of its production and the influence that it has on the man's future. This may seem to be an extreme statement. You say, "Has not every medical book got page on page of symptoms? Are there not big text books written, full of symptoms?" That is true; but the symptoms as described at present are so chaotic that it is impossible for anyone to find out by the study of books what meaning a given symptom has.

Take this one fact: We know that the stethoscope has been in use for a hundred years. There is no man here who will not say that he knows how to auscultate the heart. He well knows, when he hears a murmur, whether it is the first or second sound, and whether it is diastolic or systolic. He knows how it is propagated, and how it is sent in this or the other direction. But if anyone goes into practice and comes across a man with a murmur, what is going to happen, to the man? I do not know. You do not know. You take your textbook and go to the library, and try to find out; but there is no word in any of the books advising what is going to happen. When you buy a textbook, you think you have the latest

knowledge. A man comes to you with a complaint of an irregular heart. The man says, "What is going to happen to me?" "I don't know," you say, "but here is a book; we will see." Do you think you will get the information? No. It does not exist. That occurs with every symptom. I will give you an instance in support of this.

When I was laying down these views to a friend of mine, who had been a most brilliant student at college, he said, "It is true. When I first went into practice, I was called to see a man who was ill and I said to his wife, 'Your husband has pleurisy.' She said, 'When is my man going to be fit for his work?' That woman had the key to philosophy that is missed by every man." He said "I was stumped. It had never been hinted to me that this was a question likely to be asked." Yet this is the question that you, as industrial physicians, are asked every day. There is a question called prognosis, which I call assessing the value regarding a man's future. It is a science of the first importance in every respect, and yet the very first step has not been taken to find out how that portion of medicine should be studied.

We find, for instance, in every disease, that there is always a chapter on prognosis; but it is all camouflage. There is no such thing known as prognosis. There is not even a writer that I have discovered who has ever learned how to assess the value of one single symptom, which is very necessary. Look what it means. For instance, what do we know of the early stages of consumption? One man says, "I know that if I give tuberculin and get a reaction, that is the first stage," or, "I take an X-ray and get a shadow, and I see what is going to happen." They say, "We sent him to a sanatorium and he recovered"; but we know that if you catch the men in the early stages ninety-nine per cent. of them would recover without treatment. This is not the incidental thing; it is an incident. Its importance we cannot estimate, yet it is taken as a guide for treatment. To estimate what is going to happen to a man who shows the tuberculin reaction or a shadow in the lung—the first step has not been taken.

Then there is the question of appendicitis. You might say that you cannot tell an American audience anything about appendicitis, because Americans were the first to call attention to the disease. The surgeon says, "Have the appendix out, because the greater proportion of those with appendicitis do badly." The physician says, "Wait; because some get well." I say, "What proportion?" Do they know? The surgeon says, "There is nothing to tell whether there is danger or not." I say, "I am afraid of ap-

pendiceal abscess formation or gangrene," "Well, then, do the symptoms present foreshadow these?" He says, "That cannot be told." I say, "Are you sure?" "Yes," he says. Now, when you come to analyze these symptoms, you see that there is not a surgeon who knows anything about them. One symptom is pain. Does anyone know anything about that? One great authority says he knows. I say, "What is it?" He says, "The pain is diffuse." I say "What do you mean by diffuse?" Spread all over. Pain is always localized, only you are too ignorant to make it out. Your idea of diffuse pain is a confession of ignorance, because you have not studied it; for when pain arises it is due to definite physical change. So the fact of where the pain is, is not known.

Then, if you take another point of view, if you take an organ, such as an appendix, a colon, a piece of a bowel, the liver, or the gall bladder, you may take these organs, scratch them, burn them or tear them; and no sensation is produced, but watch. The surgeon and physician call you and say, "When we examine the belly, we find a tender appendix, colon or gall bladder." Every one accepts this as being an accurate observation; but if I took the chairman's hand and pressed it over the ink bottle until it hurt him, and said, "What a tender ink bottle," you would think it ridiculous. But that is what the surgeon does. He takes an organ that is incapable of sensation, and says that the pain elicited is in the organ, instead of investigating to find where the sensitive tissues are.

Then take McBurney's point. Has anyone taken the trouble to see what tissues were tender when pain has been produced at McBurney's point? It is necessary to find out first what tissues are capable of giving off the pain. That first step has never been taken. We have never been taught the first step in recognizing the symptom that is of the greatest importance to all humanity. You say that if you recognize the fact that these tissues of which I speak are not capable of giving rise to such pain, we do know that the pain does arise from stimulation of these organs. It may occur to you, then, that there is some peculiar thing in the production of pain in these cases. There must be something underlying the production of pain in viscera that is different from this production in the body wall. Then there is something for the surgeon to find out and correlate with the diseased state, and, therefore, get a value of the appendicitis—whether it is going to lead to danger or not.

I only mention this to show you what assessing the value of symptoms means, and to show that we have not taken the first step to do so; that is, to differentiate one symptom with sufficient clearness to know its meaning. Where that applies to you folks is in this way:

There is no use in asking the laboratory man to do anything towards prognosis. A pathologist cannot tell, a bacteriologist cannot, and a surgeon cannot; because, poor fellows, they see the thing only at the end of a long illness. I think you know that the successful surgeon is an emblem of the disgrace of the physician, because the physician hangs on to the case until too late, and the surgeon steps in and remedies his defect. The physician cannot help us, because he is more or less dependent on the laboratory or hospital record. He never sees the early cases. I was pointing this out to one of my friends. He said that, as an out-patient physician, seeing thousands of cases, he knows. I said, "You were never taught how to examine a patient to see what these symptoms mean. If these men are incapable of teaching you prognosis, the question is, who is able to do this?"

The industrial physician is the only man who has the opportunity to follow the cases from the beginning, through all the different stages, to the end. He is the only man who can throw light on a field of medicine which my object is to tell you is absolutely necessary for the progress of medicine.

In order to bring this before you, I will tell you this arose in my mind. Shortly after graduating, I attended a woman in confinement, who suffered from mitral stenosis, and whose heart went to pieces; so that when she started in labor, she got dropsical, and died in labor, after thirty-six hours of great suffering. I thought that if I had known my work better, she would not have suffered in this way; so I began to read up concerning the danger of the complication of pregnancy in disease of the heart. That was about thirty-five years ago. The literature, I found very unsatisfactory. There was a book published in 1876 by A. McDonald, of Edinburgh, who gave the usual statistics from hospitals of how many got this and that disease, and how many died. Now you consider this question, those of you in general practice. Often you will have a woman who suffers from some heart affection consult you as to whether she will be able to undergo pregnancy. You can see the importance of this. It is a question that comes before me frequently in London. It is one that every general practitioner has to face time and again. Its importance to the woman, the husband and the children is so great

that no question requires greater consideration. Just before I left London, I went to the library to look up the most recent books on this subject. I looked at the things most physicians get, and found not one word on the question. The physician, not knowing, does not question it. I turned to obstetric writers, and found a series of books by a dozen young obstetric physicians. After I had finished these, I was worse off than after seeing the book by McDonald, written so many years ago. The statistics from Guy's Hospital were given. So many had this or that, and so many died—the usual information; nothing bearing on the question of whether a woman with heart disease is capable of having a child or not. That represents the progress of fifty years under the present system of medicine.

At that time, I thought that as there did not seem to be much light on the subject, I would try myself to find out something. Being a young man, I thought I would begin to make observations on the hearts of women. It is a great blessing that I was cursed or blessed with a constitution that could not stand tobacco or alcohol; because unless one can, to sit all night in a confinement case is a weary job. I could not drink or smoke, so I studied my patient. I measured the times the pains came, and how long they lasted; I took the pulse before and after the pains, and made elaborate notes. I also noted other symptoms, and made notes in other cases. When a young girl came to consult me about her heart, I would make notes at that time; and when she got married, I would make notes then and for years afterwards. Thus I acquired an enormous accumulation of material, and began to sort and analyze it. I found changes in the size and shape of the heart and found murmurs that appeared and disappeared. The veins in the neck would become distended and pulsate. What did these things mean? I did not know. I went to a library and ransacked the books, and could not find out. I said to myself, "What do you fear?" The answer is very simple; we fear heart failure. Well, what is heart failure? Anyone could say, "The heart fails to maintain efficient circulation." "How does a failing circulation show itself?" Of course, they say that a failing heart is shown by dropsy and an enlarged liver; but people die without these things. That is the terminal end, but how does it manifest itself in the beginning? I could find no answer at all to these simple questions.

I remember that, five or six years ago, there came to work with me in the London Hospital, a Canadian, Dr. Andrew Gordon, of Toronto, who has since died. I said, "We will try to find out

what heart failure means; but before we begin, go to the library and find what the conception of various authors is." You all know what I mean—whether a heart is going to fail or not. After three months' study, he said, "I cannot get a single idea from anyone as to what is meant by heart failure." I said, "I knew you would not; but here is a case of irregular heart. Is this the sign of heart failure?" There was no answer.

This is not an English question. It is an American question, and a universal question. I remember, for instance, an incident of this sort: A man, I think from Winnipeg, discovered that something was wrong with his heart. He consulted his local doctor, who pottered with him a few months and then sent him to a great city called Chicago. He was under treatment here for a month. Then they sent him to New York. He was there a month, and they said, "Go to Nauheim." On board the ship, they told him to go and see me. As soon as he sat down, he did that.

I said, "What is your business in Winnipeg?" He told me. I said, "Take the first ship back, and attend to it, and never feel your pulse again." He wrote me that he did. This was eight years ago. If he had gone to Nauheim—well, I think that you Americans are to be blamed, because you have given the Germans a swelled head. I used to hear of the wonderful cures there, and I went there eighteen years ago and found cartloads of wealthy men there being cured. If there is one humbug on the face of the earth it is Nauheim. I never was so astonished as I was at the standardized humbug I saw there. I said, "Show me the men you are curing"; and they showed me neurotic men who had nothing the matter with their hearts. They showed me a little girl, and said, "She has an irregular heart. She fainted three months ago, and has irregularity." I said, "That is the sort of child that I send out to play in the fields." I went from one place to another, to see who did get better from lying in soda water or carbonic acid water. They said that the wonderful cure must be due to radium contact. There is no cure. It is a pure game of bluff, neither more nor less. They had a following in London, because there is money in the job, you know. A man would come to me and say, "Examine me." I did, and said, "There is nothing the matter." He would say, "I was told that if I dropped a handkerchief, my wife must pick it up; and I have to go to Nauheim. They want one hundred guineas." I said, "There is nothing the matter. You can run down the street and nothing will happen."

Another youth was brought to me. The boy had something the matter with his nose. The surgeon felt his pulse, and said, "Your heart is bad. You must go to a heart man." He went, and the heart man said, "Yes, your heart is very bad." His people were telegraphed for, and they came down in a great state of mind; because they did not know what was the matter with his heart. The great authority said, "It is an enormously dilated heart. We have a new method of finding out the size. Then, of course, he has irregularity. He must be treated at once." They said, "This is a new idea to me. Suppose we go to see Dr. MacKenzie." I said, "Tell the boy to strip. Where is the apex beat?" The doctor said, "It is here." I said, "You cannot get the apex beat there, and the dullness there." I then said to the boy, "You run away home and enjoy yourself." He came to me a year later. He was going to enter the Scots Guards. He passed, and became a soldier; and he does his work all right.

How did this stupid Nauheim craze arise? Because we do not know the meaning of prognosis. To go on with the story: (and this is where I want you folks to attend, and in your study of cases, do what I have found after much tribulation to be necessary) make careful notes of every symptom, however inconsequential it may seem. Even if you do not understand what it means, make a note of it. I take a patient with irregular heart and say, "This is what happens." I have made a collection of irregular hearts. I had not gone far before I found that there was a great variety of irregular hearts.

Going back to 1890, when Broadbent published his book on irregular pulse, you will find things described there in an indefinite, vague manner, differentiation being based on no natural affinity. So I had to proceed to differentiate one form of irregularity from another; because you can see that if you are going to study the prognosis of any bodily symptom, you must separate that from others resembling it. It takes me a long time; but I find I've got to take a record of the simple pulsation with a radial pulse. It was then that I found that the first attempt at scientific differentiation was made by that method. If any of you takes up original investigation, I cannot tell you with what pleasure you will discover a new future in medicine. I remember yet the woman from whom I was able to get a radial tracing in which the beating occurred, then a pause; and then the beating went on while all the time the auricle was beating regularly. Then it was that I first discovered that the ventricle could beat independently of the auricle. That led to the great expansion of the study of arrhythmia

that has taken place since. It is characteristic of the conservatism of England that no one would publish my papers at first. It was only because I held a college position that some man who was short of material, published my paper; and he was taken to task by a Fellow of the Royal Society, who said, "You have made a mess of your journal, because you have let that MacKenzie write an article for you. No one knows who he is."

That is one of the bad elements in our teaching to-day, that physiology is divorced from practical medicine. Here is a point that I want to bring to your attention particularly. Irregularity has been taken and studied very particularly. After I had done it, my friend in Ann Arbor took it up and later others, including Hering. Knowledge is general. It does not belong to one individual more than another; but if you were to ask why it is that what little honor has been given me was given—why, for instance, was I made a Fellow of the Royal Society?—they would say it was because I introduced laboratory methods into clinical medicine. That is all nonsense. The least thing I did was these mechanical toys. I remember that Lister cursed the spray. He said, "I think it is necessary, but I will do anything to get rid of it." But to-day, they all say that Lister was the man who invented the spray. They say that I invented the polygraph. That was the least thing that I did. The invention was only to enable me to get a clear differentiation of one thing. The work that I did does not appeal to one out of one thousand physicians and surgeons. No laboratory men, pathologists or physiologists, can understand what I was doing. That is, trying to find out the symptoms. What I had said to myself from the beginning was, "What is going to happen to that man who has that irregularity, what will happen to a poor woman with an irregular heart?" I would go down daily and attend a woman in confinement, to find out how a woman with an irregular heart would go through pregnancy. If I found a working man with an irregular heart, I would have him come and see me once a month, and keep records. If a man got pneumonia with an irregular heart, I would attend to him to see what would happen to him. In that way, I differentiated the irregularity of no moment from those of serious kind. Many were of purely physiological origin. I had to begin to reconstruct the science of prognosis, to know how to make a prognosis; and that science has not yet entered on its elementary stage. That is why I am appealing to you folks, because it is to you that the future of medicine must look to find out the value of symptoms. When your patients come to you complaining of this or that pain, with

an indefinite illness, you should make a careful note of all the symptoms that you are able to detect. Keep in contact with them as many times as you can. Then you will begin critically to see the meaning of the early symptom. For instance, in my early days, I had an enormous amount of work on gastric ulcer. Many complained of anemia, which we called chlorosis. Many give Bland's pills to these patients, and think they cure them. Later, however, they come with hemorrhage and evidences of gastric ulcer. Then I said, "Here is the beginning of gastric ulcer. Is there anything earlier still?"

Take consumption: We do not know what is the earliest stage. There is something behind the tubercle bacillus. It has always been to me a question, "What is this something behind?" The bacteriologists can only see a very limited portion of disease, and they are beginning now to come out of the laboratories to treat people. This is the sort of thing that happens: A man gets a suppurative infection of the pharynxes. He goes to a bacteriologist, who cultivates a streptococcus, makes a vaccine, and proceeds to inject it into the man. After many months' treatment, the man is no better. He goes to a general practitioner. The general practitioner looks and says, "You have scabies," and cures him in a week. I told that story to a friend of mine who is in charge of a convalescent camp, and he said, "I know thirty or forty instances in which that has happened." There is the point of accurate diagnosis preceding treatment. In consumption, is there not a scabies, or something like that, behind, which allows a man to develop consumption? We know that the large bulk of the community is affected, at one time or another, with tubercular infection; but that only one, here and there, develops consumption. When I go back, being a general practitioner and always having the same families to see, I shall inquire who are those who have consumption in my practice? I find that every one of these patients has been under treatment for something, for years beforehand. Most have been treated for gastric ulcer. Then they were treated for consumption in a sanitarium, and died. If I had been capable of treating the gastric ulcer or had handed it over to the surgeon in time—(because it was the gastric ulcer that needed treatment, and not the consumption), these patients might have been saved.

My purpose to-day in speaking is not to show you how the thing could be done, because that would take too much time, but to arouse your mind to the fact that there is a problem. Until you know that there is a problem, you will not try to solve it.

The theologian says that a man is not fit for amendment until he becomes conscious of sin.

Then there comes the question of how that problem can be tackled. I do not know whether I can convey the idea clearly to your minds or not. There is needed a new outlook on medicine, a new regeneration in medicine; and if we are content to go on using the old methods, that will never come. I have tried to get my brethren on the other side of the water to see the point, and I cannot get any one to realize it; so much so that one man said that I was like the insane man who thinks that he himself is the only sane man in the world. But if I am mad, there is a method in my madness; because I am so convinced of the need of this.

I am not saying anything against laboratory methods. I told Dr. William Welch that he had a most pernicious influence on medicine, as I told Sir Almroth Wright; because the laboratory man, pathologist, bacteriologist, etc., should be the handmaid or servant, of the general surgeon or general practitioner. Instead of being servants, they have raised themselves so high as to dominate the surgeon and general practitioner, and direct attention away from the only necessities of medicine. To show that I have the strength of my convictions—in London, up to three months ago, I had what probably every physician deems the best thing, one of the best consulting practices in London; but I could not get these ideas worked out. I said to myself, "If I stay here, I shall never get them worked out"; so I shut the office and went to St. Andrew's, and took up the work of a general practitioner. I was enjoying this rest, when the call came from this Association for me to come to America. I did not want to do it. I had no work here to do. But I thought it was my duty to come. I want to say this, however; I have given up my work, to do something, if possible, to lay the foundations of a new conception that medicine actually called for.

Here is a war matter. The difficulties are these: At the first outbreak of war, there was a demand for recruits; and they came rushing in such numbers that the authorities could not cope with them. Recruiting was stopped then for a time. Then there came a time when conscription was instituted, not only of the healthy but of the impaired. I want you to mark that: Of the impaired. Now you men engaged in industrial practice know that the most difficult thing you have to do is to say what amount of work a man is fit for. A man engaged in this work for thirty years, like myself, realizes that difficulty and our army authorities, who never had anything to do with a sick man except when he broke down,

thought that they could settle the matter by putting the men in different grades, according to the amount of work they were capable of doing. That is, they assumed a knowledge that did not exist. No man had that knowledge; but when I called their attention to it, it did no good. What was the result? Disaster. There was almost a revolution; because so frequent and numerous and glaring were the mistakes made where men, manifestly unfit, were put into different grades, broke down and died. For instance, my gardener, a man with an emphysematous chest, was put in class B, to labor at home, and was started to work as a navvy. He was exposed to inclement weather, and got a cold. He was told that he was shamming, and would be punished if he reported sick again. He finally got into the hospital, and was sick many months. He then was invalided out with a pension. That is what is meant by prognosis. At this crisis of the world, when the nation calls on us for the knowledge that we pretend to have, we are found wanting, and cover it up with all sorts of camouflage.

These are the objects that I wanted to press upon you in your work; because men taking notes, who will watch individuals, will find out these symptoms. Follow out your own plan. The plan I give you may be right or wrong, but one that you develop yourself may be better. It is only to you that I look to save medicine, and I do trust that these few words may encourage you to take up this work.

Registration at the Faculty of Medicine, University of Toronto, has closed this year with a record first year, 255 students being registered for the first year work, of whom over thirty are girls. Not since 1905, the last year of the four-year course, has there been a registration approaching this year. Then 262 registered in the first year, but only 238 attended.

The attendance in the first three years is larger than ever before, but the upper years are so small that it is doubtful whether the attendance in the whole faculty is much greater than usual.

In the second year 178 have registered, in the third 121, in the fourth 78, and in the fifth 55.

News Items

Dr. Allen Baines, Toronto, has returned from the Pacific coast.

Lieut.-Col. L. E. W. Irving, D.S.O., is acting A.D.M.S., Toronto Military District No. 2.

General George Stirling Ryerson is now in residence at the Alexandra Apartments, University Avenue.

Drs. Norman MacLaurin, C. F. Clarke, Hanna, Oliver Mabee and Robinson, Toronto, have been assigned to duty at Basingstoke England.

Dry Island, near Morrisburg, owned by J. W. Corrigan, a New York millionaire, will likely be accepted by the Militia Department for use for convalescent soldiers. Mr. Corrigan offers it for that purpose. Brig.-Gen. Hemming and Lieut.-Col. Gardiner, A.D.M.S., have reported it well adapted for hospital purposes.

Instead of building a general hospital in Windsor, as reported last week, the Salvation Army has purchased the residence of Henry W. Ellis, at the corner of London Street and Crawford Avenue, with the idea of remodeling the property for hospital purposes. Within the next month or two the Salvation Army will open a campaign there to raise \$32,000 to aid the hospital project.

Major J. Harvey Todd, Toronto, died recently in Quebec City, of pneumonia. His age was thirty-five, and he was a son of Dr. J. A. Todd, College Street. The late Major Todd was among the first of Toronto's medical men to volunteer for overseas service, and served with distinction for over two years. He was of a very pleasant disposition, a likeable companion, and will be greatly missed by his confreres of this city.

At a meeting held in Port Hope, October 12, the eight hospitals of Central Ontario formed an association. During 1917 they spent \$128,633 in caring for 4,100 patients. The following are the hospitals interested: Port Hope, Ross Memorial, Lindsay, Bowmanville, Oshawa, Cobourg, Peterborough and Belleville. They were represented by the presidents of their respective boards and the lady superintendents. Mr. John D. Hayden, President of the Cobourg Hospital Board, was elected President, and Dr. Henry of Oshawa, Secretary.

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COMMENT FROM MONTH TO MONTH

Influenza swooped down on Toronto, Ottawa, Montreal, and other Canadian towns, cities and encampments, like a wolf on the fold. It was known that it had appeared in some American cities, that S.O.S. calls had even been sent up into Canada; but we did not appear to know much as to what it was like until we got its first full broadside.

Information is not to hand as to just what Canada did to keep it out of this Dominion; but in due time, no doubt, we shall learn of the efforts put forth to stay its ravages. We cannot help thinking, however, that a terrible fall has been taken out of preventive medicine not in Canada alone, but wherever preventive medicine is practised.

It would seem now as though in many cases medical officers of health calmly awaited the oncoming storm—believing in the inevitable.

That so terrible devastation could be worked in such short space of time by any disease on the calendar—and there does not appear to be anything new in this influenzal outbreak—for the time being has left us all more or less benumbed. Possibly later on we shall come to our senses and wonder why an outbreak of such fierce onslaught should not be handled with more vigor of

action even than an outbreak of diphtheria or scarlet fever. Can it be possible that we have made a mistake in thinking influenza cannot be properly controlled by notification, isolation, and quarantine for a definite period? A wild beast like this and pneumonia, its companion in the couple, hunts over a wide field; and the answer to their ravages is: It is not practicable to treat these as other communicable diseases.

That a Ministry of Health for Canada may be scared into the Dominion by "FLU" may be the best good thing to come out of the epidemic. We have tried to coax one out of governments; have tried to pry one out; have tried to reason one out—oh! for so many years—but that which has hitherto failed by reasoning, prying, coaxing, may now succumb to scaring. The people might well ask their representatives in Parliament: What did you and the Government do to keep this blasted scourge, "FLU," out of Canada? We believe we have no department of government charged with such responsibility; that not a hand, not a finger, not even a speech of the most rabid partisan was directed against the incoming enemy. He simply crossed the border at various points, unchallenged and unmolested—given the freedom of the whole country.

We simply ask the question: Is it good national politics to neglect the health of the people? A wide-awake national bureau of health at the present time could have found ample opportunity for justifying itself. In their scandalous neglect of this matter for so many years, successive governments have dallied with the lives and the health of the great democratic body of citizens for whom they merely act as the common agent for all, charged with the protection and maintenance of the interests of all.

What is the best successful treatment of "Flu"? Rest in bed. It is quite likely that, in the great majority of cases, without any supplemental medicinal treatment, dietetic or otherwise, will accomplish all that is required. The antibodies soon get the upper hand of the invading enemy. But the cases of pure culture are rather scarce. There are far many more where there are laryngitis, bronchitis, tracheitis, even broncho and lobar pneumonia. In the writer's experience bronchitis predominated; it

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was of a severe type—very pronounced, hollow cough—and often seemed that the patient had just about escaped broncho-pneumonia.

For the disease itself, salycilate of soda seems to act as well as any other remedy; and perhaps the age incidence was more pronounced between five and thirty years than at any other period, although cases have been seen over eighty, and under one year.

The bowels are generally relieved by any of the ordinary remedies. Somewhat obstinate constipation was noticed in several convalescents which gave more anxiety to mothers than to any one else.

For the cough, inhalations of the steam of tincture of benzoin was more satisfying than any preparation of codeia which, indeed, in some cases rather aggravated the irritation.

To those accustomed to the remedy and who for long years have pinned their faith to hot drinks and resulting hot sweats, hot Scotch, or other whiskey, is said to possess virtues which place that remedy amongst the most pleasant methods of treatment.

We cannot verify the statement that this is a disease always with a slow pulse. The only slow pulses seen were in patients who had had the disease and were trying to fight it off, and ultimately got scared and called in the physician. Some of these were in the forties.

MUST QUIT CIVIL PRACTICE

Ottawa is on the trail of medical officers who, while drawing full pay and all allowances for services rendered to the army, still devote part of their time to carrying on their civilian practice. An order issued to-day says: "No medical officer who is engaged in civil practice will be permitted to draw full time pay and allowances except when sent for temporary duty away from his home station."

Major Harley Smith, Toronto, is now in France with the Fourteenth General Hospital, B.E.F. The hospital is established in a big hotel and in huts on the coast. Dr. Smith is in charge of wards for officers, having both surgical and medical cases. Writing under date October 13th, and this is interesting in view of the charges of overcrowding in the Toronto Military Base Hospital—"We are overcrowded and I have patients in corridors and storeroom."



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THE EFFECTIVE TREATMENT OF INFLUENZA

The severe headache and general muscular aches and pains that occur so uniformly with the onset of the type of influenza now epidemic in this country, call for prompt relief. The wisdom of this is apparent, as persistence of these pains serves to add to the vaso-motor disturbance and, to a corresponding degree, interfere with the physiologic functions of the body. With complete control of the headache and other pains, the vaso-motor condition improves materially, the circulation becomes more free, and the natural forces are given greater opportunity to exercise their effects.

Of the many remedies that have been used and recommended for relieving the headache, backache and severe muscular pains that usher in the average case of influenza, there is none that has proven so effective and serviceable as Phenalgin.

Five grains should be given every two or three hours for four doses and then every four hours until pain and discomfort are entirely gone and the patient's temperature is normal. The anodyne action of Phenalgin is marked with the especial advantage that it does not depress the heart, suppress bodily secretions, derange the digestion, lead to bowel torpidity, or give rise to any of the evil effects common to the opiates. The marked anti-spasmodic influence of Phenalgin, in addition to its analgesic action tends to prevent congestion and restore the circulatory balance. As a consequence the use of Phenalgin in the treatment of influenza not only gives gratifying aid in limiting attacks of the disease to the initial stages, thus reducing their severity and duration, but also proves helpful in preventing the development of complications.

A comprehensive trial of Phenalgin in any case of the prevailing influenza cannot fail to convince the physician of its exceptional worth, *first*, as a means of affording relief of distressing symptoms, and, *second*, as a remedy effectively contributing to prompt and satisfactory recovery. In cases characterized by decided weakness and depression the following combination has proven very effectual:—

R	Phenalgin	2½ gr.
	Quinine Bisulphate	2 gr.
	Pulv. Camphor	½ gr.

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Publisher's Department

THE RECOVERY FROM LA GRIPPE.—Since the first appearance upon our shores of that unwelcome infectious disease known as La Grippe, the medical journals have been filled with articles advocating different methods of treating the attack itself and its various complications. But little attention, however, has been paid to the important question of how to best treat the convalescent subject. Among all of the acute infections there is probably none that is as likely to leave the patient quite as thoroughly devitalized and generally prostrated, as does a sharp attack of La Grippe. For some reason the degree of prostration from grippal infection appears to be entirely out of proportion to the severity of the attack itself. This peculiarity renders it advisable and usually necessary to strengthen and support the general vitality of the patient during the period of convalescence. Complete rest, nonriching food, plenty of fresh air and stimulation according to indications are, of course, distinctly important measures. At the same time tonic and hematinic medication should not be neglected. Probably the most generally acceptable and efficient general tonic and hemic reconstituent for such patients is Pepto-Mangan (Gude), a bland, non-irritant and promptly absorbable combination of the organic peptonates of iron and manganese. This efficient blood-builder and reconstructive does not disturb digestion nor induce constipation, and is readily taken by patients of all ages.

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THE PATHOLOGY OF INFLUENZA, AS OBSERVED IN THE PRESENT EPIDEMIC

JOHN J. MACKENZIE, B.A., M.B.

Professor of Pathology, University of Toronto.

Up to date in the present epidemic we have done fourteen autopsies upon cases of pneumonia following influenza. In all the cases the autopsy findings have been strikingly alike.

The bronchial mucosa has shown intense congestion from the trachea down to the smallest tubes. In many of the cases a muco-purulent exudate has covered the mucosa, in others no obvious purulent character was present, but the exudate was watery and mixed with blood.

In the pleural cavity of eight cases there was fluid in most of them in considerable quantities. In six the pleural cavity is noted as free from fluid. The fluid present was sometimes clear and transparent, of a yellowish tint, but contained very heavy masses of fibrin. In others it was like thin blood-stained pus.

The lungs showed extraordinary variation in the picture, but in no case had it the slightest resemblance to any stage of a lobar pneumonia. There was always considerable vesicular emphysema in the uninvolved portion of the lung. Where the accumulation of fluid was great there was considerable collapse. The pleural surface was deeply congested, with often small hemorrhages in the pleura. In two cases there were small areas of definite necrosis of the visceral pleura.

On section the lung showed practically everywhere intense congestion. In the earlier stages there might be no actual consolidation but areas of a deeper color and diminished air content stood out from the surface of the lung and were distinctly denser

on palpation. In the centre of these areas the bronchioles exuded pus on pressure.

In later stages there were definitely consolidated areas which might be so extensive as to occupy quite a large proportion of a lobe. This consolidated area was of a pinkish-grey tint, the cut surface of which showed complete absence of air, but which, in contradistinction to a lobar pneumonia, was not dry and fibrinous but exuded a thin reddish purulent fluid. The margins of these solid areas passed off into consolidated lobular districts and in the main area of consolidation a definite lobular mottling could be made out. Many of these areas of consolidation showed in the central portion a discoloration which suggests beginning necrosis of the lung tissue, and this is borne out by the microscopic examination. In two cases beginning abscess formation had occurred, and these abscesses had a definite outline which suggested a relationship to the lung lobules. There seems to be a tendency in the more advanced cases to necrosis or abscess formation, which must be due to interference with the blood supply of the consolidated lung.

It is not possible to give a detailed account of the microscopic findings in all the lungs autopsied, but the picture varies enormously from field to field. The most intense change is in the terminal bronchioles, where one finds complete destruction of the epithelium, an intense congestion of the mucosa and a filling of the lumen with desquamated epithelial cells and polymorphonuclear leucocytes.

The whole anatomical picture, whether gross or microscopic, is different from an ordinary lobar pneumonia, and after a few post-mortem examinations one gets the impression of a characteristic picture which enables one to recognize at once an influenza pneumonia on the autopsy table.

From the anatomical picture, one is led to consider what may happen to these lungs where recovery takes place. The conditions are not favorable to the resolution which follows lobar pneumonia. When recovery takes place from the early stages it is probable no serious damage will be done to the lung tissue. When, however, the condition progresses to the more advanced conditions, one must expect more or less permanent damage to lung tissue.

MY MEDICAL CREED

BY JAMES S. SPRAGUE, M.D.,

Hon. Member Medico-Legal Society, New York City, Belleville, Ontario.

(The Medico-Legal Journal.)

I believe the sons of physicians when properly qualified by the prescribed studies of our universities become the equals, if not the superiors, in worth to the commonwealth—of their fathers and that the said sons should receive gratuitous tuition by the University of the state wherein they were born or where their parents reside. In keeping with this belief I am but repeating the words in this interest to be found in the Oath of the Hippocrates—The Grecian Master Mind—The Father in Medicine (460 B.C.)—which oath, as Gomperz says, “is the most memorable of all human documents,” and who told us the physician is truly a philosopher God-like (*Iatros gar philosophos Kai isothos*). The sons of this “*Marimus Auxiliator aegris*,” as were the sons—Machaon and Podalarius of Aesculapius thus freely educated by the state as an honor.

Although no doctors worthy of being so honored, or thus addressed, should be ignorant of this immortal oath or invocation, it may be possible there are, and for their benefit and for my suggestion to be considered by our universities as not only advisable but demanded as regards free tuition, I present the Master's words: “I will hold my master of Medicine in the same rank as the authors of my being. I will consider his children as my brothers, and, if they wish to learn the Medical Art I will teach them without salary or price.” In this humble, yet loyal and very timely suggestion for the nations' welfare no unworthy thought have I that others not of our profession should disgrace our temples in the pursuit of the highest wisdom among men, for as fakers, as followers of pernicious and damnable-modern so-erroneously named cults, there is no room or place for them among honest medical students, and who could not translate, or understand the full inspiration of the following words of three master-minds in Medicine:

“*Eruditissimos homines artem medicam nosse oportet.—Sapientiae cognitionem medicinae sororem ac contubernalem esse puto. Primoque medendi scientia, sapientiae pars habebatur.—Rationalem quidem puto medicinam esse debere. Quemadmodum sanitas omnium rerum pretium excedit, omnisque felicitatis fundamentum est, ita scientia vitae ac sanitatis tuendae omnium nobilissima, omnibusque hominibus commendatissima esse debet.*”

No, not for fakers, adherents of moonshine, mushroom or modern cults unworthy of mention in this presentation, but for those noble and educated youths who selected by choice our honored profession as the first of arts before which, and whose might all the others would sink in night is this my pleasing labor most altruistically heralded—and not to them especially but to those who are in the Clergy, in Law, and our Legislative Assemblies and believe with Gladstone that “duly qualified university M.D.’s will become the future leaders of the nations” and with the great Virchow, that as the physicians are the natural attorneys of the poor and oppressed, all the great problems of a successful and national existence will have to be solved by them. “Truth is truth to the end of reckoning,” said the Bard of Avon, and as evidence of a proof, the ordinary observer of the times sees very plainly that the Church has lost its power in all, or nearly all Christendom, and Medicine—the regular profession—having freed itself from the shackles of the “Divine” or “Angelic Conjunction”—moss covered creeds, ignorance, hypocrisy, fee-faw-fums, superstition and Ecclesiastical gall—has the principal seat among the seats of the nations. Mighty men—who shall, according to Sophocles, Kant and Gladstone, see in existence the verification in our times of those conditions named by Plato in his Dialogues of Eryximachus—when peers meet peers.

“Who wield the gavel as the worshipful masters,” none opposing or daring to make afraid—for, as in the days of Rome’s highest enlightenment, and ever since has been, and everywhere will be—the Supreme Law, and that refers primarily and finally to the greatest of national interests—namely, the public health—in peace and war. Thus it is evident that in medicine none but those who are thoroughly trained in all the studies leading to the degree of M.D. assigned by our state or other well-established, well-equipped and well-endowed universities, should be legalized to practise by the civilized nations, and not those pernicious cults, falsely termed “medical,” whose hot-house breeding, fakerism, and condemnable followings have disgraced and are now dishonoring the fair name of the United States among the nations, where medicine is held, and has ever been held a learned profession—and its degrees given only by universities.

Dr. A. Jacobi, the master mind, of New York City, did Heracleean services in trying to prevent the born-in-old Missouri cult—osteopathy—from recognition in the Empire State—but he has not the supporters—and thus you and others of the dear New England States must deplore your folly and want of prescience—

when you notice the name of medicine and the title—doctor—dishonored and thrown aside by rib punchers, spinal adjusters, etc. The profession of law, too, has many in its ranks, unworthy of Gladstone's or Lincoln's recognition, such as those brought in from the gutters by night schools, correspondence schools, and several institutions really incorporated, that in twelve months give L.L.B. That such debasement of so learned a profession as law exists, one may find numerous proofs in the reading of advertisements in popular journals issued from your presses. To be brief: no nation can maintain an exalted standing that ignores the learned professions; the Church (through courtesy), the Law, and Medicine, and in no civilized country are these professions so poorly protected from the rabble when seeking admission therein and yet, as seems a paradox, no country can rival your universities in excellency—and by such I can name many, yet deplorable is it, that they outnumber those of the British Isles and even of Europe.

In conclusion, I will state these are thoughts long entertained, studied, announced, and are of interests, in which all good citizens are personally concerned, and yet said thoughts are but slightly pronounced, and slightly and hurriedly touched. To preserve the truth that of *Medicus in Omne aerum nobilis*; To preserve Blackstone and the Supreme and lower Courts from the unwashed and rabble, night and correspondence schools, cheap L.L.B.'s, the best—that is, the state universities, must have full control, and they alone be given the power to issue *Testamurs*, and then the highest efficiency will be met and the degrees bring honor to the givers, to the alumni and the Commonwealth.

Another interest of my creed is that well and timely presented by a Toronto medical student, L. A. Murray, yet as to the "girls," I am of the opinion but few are in the lists as they and their "sisters" too often have been weighed in the medical scales and found wanting. Their only license should be that marked "marriage"; their only study, "babies"; their ambition "home and husband love"—even "nursery songs." The M.D. degree does not make them any way "marketable"—or in fulfilling the Scriptures—or even ensnaring the M.D. in the matrimonial net or trap. "The ordinary person does not realize the fact that no ordinary person can become a doctor of medicine. The medical course of the present day is the most strenuous course in the whole curriculum, and anybody who survives it must be of the most persistent kind. Therefore doctors cannot be made from mediocre men—of which the world is full.

EPIDEMIC INFLUENZA *

(SPANISH INFLUENZA.)

An acute infectious disease (epidemic influenza) has prevailed in Europe this year similar in many respects to the disease which prevailed in pandemic form in the winter of 1889-90. It seems probable that in 1918, as in 1889-90, the earliest appearance was in Eastern Europe. By April cases were occurring on the western front. In Spain, according to reports, 30 per cent. of the population were attacked in May. The 1889 epidemic, starting in northern Europe, also fell heavily on Spain; the present ruler, then 3 years old, being one of the first attacked in Madrid. The King of Spain is said also to have been attacked in the present epidemic. The epidemic of 1918 was at its height in Germany in June and July. It has appeared in practically every section of Europe. In England the epidemic prevailed in May, June, and July.

Outbreaks have been reported from various sections of the United States, but the spread has been by no means so rapid as in 1889, when the disease occurred in America almost simultaneously with its appearance in western Europe.

In the absence of a clean-cut symptomatology, distinct from that of other diseases, and of any criterion, such as a proved causative organism, demonstrable in the tissues of the patient or his discharges, it is difficult to make diagnosis in individual cases apart from an intense prevalence of the disease. It is likewise impossible for us to assert or deny the unity of this epidemic with that of 1889-90. The marked difference in season is notable. In 1889 the first outbreak occurred in St. Petersburg during October; in Berlin and Paris, during November; in Brussels, Copenhagen, London, Vienna, Rome, Madrid, Boston, New York, and Philadelphia, during December, persisting in each place for one or two months. In 1918 the heavy incidence has been in summer, but the duration in any one focus, the general character of the disease, its tendency to spread along routes of travel, and the enormously high case incidence have been similar in the two pandemics.

* United States Public Health Service.

The identity of the present outbreak with outbreaks in other years is even more uncertain.

Hippocrates and Livius refer to an epidemic in 412 B.C., which is regarded by many to have been influenza. Since ancient times, epidemics somewhat similar to the present outbreak have been recorded in the twelfth and thirteenth centuries, 4 in the fourteenth, 5 in the fifteenth, 8 in the sixteenth, including the pandemics of 1510 and 1580, 8 in the seventeenth, 20 in the eighteenth, and 14 in the nineteenth century, including the pandemics of 1831, 1833, 1837, 1847-48, and 1889-90. After the pandemic of 1847-48, there appears to have been a considerable pause before the pandemic of 1889-90 appeared "like a thunder cloud from the east," as Beek puts it. Following this pandemic, high incidence of epidemic influenza was reported during the winters of 1891 to 1894, 1907-8, and 1915-16.

The symptoms in the present pandemic have been an acute onset, often very sudden, with bodily weakness and pains in the head, eyes, back, and elsewhere in the body. Vomiting may be a symptom of onset, and dizziness is frequent. Chilly sensations are usual, and the temperature is from 100° to 104°, the pulse remaining comparatively low. Sweating is not infrequent. The appetite is lost, and prostration is marked. Constipation is the rule. Drowsiness and photophobia are common. The conjunctivae are reddened, and the mucous membrane of the nose, throat, and bronchi often give evidence of inflammation. The general symptoms, however, predominate over the local. Cervical and general lymphadenitis and nystagmus have been reported to be very frequent by certain observers. Characteristically, there is no leucocytosis during the height of the fever, so that a high white count during the first sixty hours is indicative of another disease or of complication. The fever usually lasts from three to five days; but relapses are not uncommon, and complications, particularly pulmonary, are to be feared. The death rate is usually given as extremely low; but in the latter periods of an outbreak an increased number of deaths, presumably due to complications, has been reported in Spain and in the United States. Besides bronchitis and pneumonia, inflammation of the middle ear and cardiac weakness may follow the disease.

Epidemic influenza may vary in type in different places; thus diarrhea was said to be frequent in Spain. It is to be supposed that in some places aberrant types may be found, but, in the absence of a definite criterion for diagnosis, it is impossible to affirm this with certainty.

In its onset, epidemic influenza may simulate almost any of the acute infectious diseases, but in the civil population it must be differentiated chiefly from an ordinary coryza or bronchitis, from cerebrospinal fever, and from such conditions as the glandular fever of children. In the usual coryza or bronchitis the general symptoms are by no means so severe or so sudden in appearance as in epidemic influenza, and the spread of these infections through a community is not so complete. Even in the absence of an outbreak of epidemic meningitis, the symptoms mentioned as typical of influenza, if combined with a stiff neck or Kernig's sign, would justify a lumbar puncture. A negative result with the lumbar puncture or the absence of a leucocytosis would indicate that meningitis was not present. Glandular fever is limited to children; other ephemerical fevers have not occurred in widespread fashion. The short course of the fever (always less than seven days) in uncomplicated influenza is thus an aid in diagnosis.

The incubation period is probably as a rule very short, though with such universal prevalence this is hard to verify. All ages are attacked, young active adults being especially susceptible. In Germany there has been such a preponderance of cases among the young that it is supposed that the 1889 epidemic conferred an immunity on most of those at present over 30 years of age. This has not been observed elsewhere.

All evidence points to human contact as being the means of spread, and from the local symptoms it has been assumed that the nose and throat have been the points of egress of the virus and the points of inoculation. There is nothing to show that other animals have any part in carrying the disease.

Discussion as to the etiology of the disease has been chiefly concerned with the question whether the influenza bacillus of Pfeiffer (1892) is the specific causative factor. This organism offers difficulties in recognition, cultivation, and identification, and it may be that the failure to find it in the last pandemic and the failure of many bacteriologists of standing to demonstrate it in the present pandemic are due to these difficulties. It is certainly found outside of epidemics, and we can not regard its absence at present as indicating that the disease is not epidemic influenza. For the present the diagnosis must be clinical rather than bacteriological. Streptococci and other diplococci, some similar to or identical with the *micrococcus catarrhalis*, have been reported as very frequent in the nose and throat of patients. Pneumococci and bacilli of the Friedlaender group have been found in complicated cases. The mere predominance of a certain

organism in the respiratory tract can not be accepted as proof that it causes the disease. It may be that the actual causative factor is a filterable virus.

The treatment is symptomatic. On account of cardiac weakness, rest in bed should be prolonged after defervescence in proportion to the severity of the case. Attention to cleanliness of the mouth, adequate ventilation, avoidance of exposure to cold, and isolation from those who may be carriers of virulent pneumococci and streptococci are measures advisable to prevent complications. Aspirin or similar remedies may be used to relieve headache and general pains. Watch should be kept for complications, and cases should not be discharged too early.

Crowded offices, and particularly street cars, are potent factors in the spread of the disease. In Berlin the street car conductors showed an exceptionally high incidence. The avoidance of street cars and of crowds, where possible, is therefore to be urged during an epidemic, although the disease is too mild to make it advisable to stop all the activities of a city. To prevent the transportation of the influenzal virus to the well and possible causes of complications to the sick, masks for sick-room attendants are advisable. The organism is probably short lived outside the body, and attention should be directed toward keeping people apart rather than toward the disinfection of things, aside from the precautions of general cleanliness. The spread of streptococcus pneumonia in military camps, and the fear that with the advent of cool weather severe pulmonary complications will follow influenzal attacks more frequently than during the past summer, indicate the urgent need for the adoption of more stringent precautions to prevent such complications than have been customarily taken hitherto.

The most dangerous form of human contact in the presence of epidemic influenza is, in all probability, that with coughers and sneezers. Coughing and sneezing, except behind a handkerchief, is as great a sanitary offence as promiscuous spitting, and should be equally condemned.

"SPANISH INFLUENZA"—"THREE-DAY FEVER"—"THE FLU"

United States Public Health Service.

RUPERT BLUE, SURGEON GENERAL.

What is Spanish Influenza? Is it something new? Does it come from Spain?

The disease now occurring in this country and called "Spanish Influenza" resembles a very contagious kind of "cold" accompanied by fever, pains in the head, eyes, ears, back or other parts of the body, and a feeling of severe sickness. In most of the cases the symptoms disappear after three or four days, the patient then rapidly recovering; some of the patients, however, develop pneumonia, or inflammation of the ear, or meningitis, and many of these complicated cases die. Whether this so-called "Spanish" influenza is identical with the epidemics of influenza of earlier years is not yet known.

Epidemics of influenza have visited this country since 1647. It is interesting to know that this first epidemic was brought here from Valencia, Spain. Since that time there have been numerous epidemics of the disease. In 1889 and 1890 an epidemic of influenza, starting somewhere in the Orient, spread first to Russia, and thence over practically the entire civilized world. Three years later there was another flare-up of the disease. Both times the epidemic spread widely over the United States.

Although the present epidemic is called "Spanish influenza," there is no reason to believe that it originated in Spain. Some writers who have studied the question believe that the epidemic came from the Orient and they call attention to the fact that the Germans mention the disease as occurring along the eastern front in the summer and fall of 1917.

How can "Spanish influenza" be recognized?

There is as yet no certain way in which a single case of "Spanish influenza" can be recognized; on the other hand, recognition is easy where there is a group of cases. In contrast to the outbreaks of ordinary coughs and colds, which usually occur in the

cold months, epidemics of influenza may occur at any season of the year, thus the present epidemic raged most intensely in Europe in May, June, and July. Moreover, in the case of ordinary colds, the general symptoms (fever, pain, depression) are by no means as severe or as sudden in their onset as they are in influenza. Finally, ordinary colds do not spread through the community so rapidly or so extensively as does influenza.

In most cases a person taken sick with influenza feels sick rather suddenly. He feels weak, has pains in the eyes, ears, head or back, and may be sore all over. Many patients feel dizzy, some vomit. Most of the patients complain of feeling chilly, and with this comes a fever in which the temperature rises to 100 to 104. In most cases the pulse remains relatively slow.

In appearance one is struck by the fact that the patient looks sick. His eyes and the inner side of his eyelids may be slightly "bloodshot," or "congested," as the doctors say. There may be running from the nose, or there may be some cough. These signs of a cold may not be marked; nevertheless the patient looks and feels very sick.

In addition to the appearance and the symptoms as already described, examination of the patient's blood may aid the physician in recognizing "Spanish influenza," for it has been found that in this disease the number of white corpuscles shows little or no increase above the normal. It is possible that the laboratory investigations now being made through the National Research Council and the United States Hygienic Laboratory will furnish a more certain way in which individual cases of this disease can be recognized.

What is the course of the disease? Do people die of it?

Ordinarily, the fever lasts from three to four days and the patient recovers. But while the proportion of deaths in the present epidemic has generally been low, in some places the outbreak has been severe and deaths have been numerous. When death occurs it is usually the result of a complication.

What causes the disease and how is it spread?

Bacteriologists who have studied influenza epidemics in the past have found in many of the cases a very small rod-shaped germ called, after its discoverer, Pfeiffer's bacillus. In other cases of apparently the same kind of disease there were found pneumo-

cocci, the germs of lobar pneumonia. Still others have been caused by streptococci, and by other germs with long names.

No matter what particular kind of germ causes the epidemic, it is now believed that influenza is always spread from person to person, the germs being carried with the air along with the very small droplets of mucus, expelled by coughing or sneezing, forceful talking, and the like by one who already has the germs of the disease. They may also be carried about in the air in the form of dust coming from dried mucus, from coughing and sneezing, or from careless people who spit on the floor and on the sidewalk. As in most other catching diseases, a person who has only a mild attack of the disease himself may give a very severe attack to others.

What should be done by those who catch the disease?

It is very important that every person who becomes sick with influenza should go home at once and go to bed. This will help keep away dangerous complications and will, at the same time, keep the patient from scattering the disease far and wide. It is highly desirable that no one be allowed to sleep in the same room with the patient. In fact, no one but the nurse should be allowed in the room.

If there is cough and sputum or running of the eyes and nose, care should be taken that all such discharges are collected on bits of gauze or rag or paper napkins and burned. If the patient complains of fever and headache, he should be given water to drink, a cold compress to the forehead, and a light sponge. Only such medicine should be given as is prescribed by the doctor. It is foolish to ask the druggist to prescribe and may be dangerous to take the so-called "safe, sure, and harmless" remedies advertised by patent-medicine manufacturers.

If the patient is so situated that he can be attended only by some one who must also look after others in the family, it is advisable that such attendant wear a wrapper, apron, or gown over the ordinary house clothes while in the sick room, and slip this off when leaving to look after the others.

Nurses and attendants will do well to guard against breathing in dangerous disease germs by wearing a simple fold of gauze or mask while near the patient.

Will a person who has had influenza before catch the disease again?

It is well known that an attack of measles or scarlet fever or small-pox usually protects a person against another attack of the same disease. This appears not to be true of "Spanish influenza." According to newspaper reports the King of Spain suffered an attack of influenza during the epidemic thirty years ago, and was again stricken during the recent outbreak in Spain.

How can one guard against influenza?

In guarding against disease of all kinds, it is important that the body be kept strong and able to fight off disease germs. This can be done by having a proper proportion of work, play, and rest, by keeping the body well clothed, and by eating sufficient, wholesome, and properly selected food. In connection with diet, it is well to remember that milk is one of the best all-around foods obtainable for adults as well as children. So far as a disease like influenza is concerned health authorities everywhere recognize the very close relation between its spread and overcrowded homes. While it is not always possible, especially in times like the present, to avoid such overcrowding, people should consider the health danger and make every effort to reduce the home overcrowding to a minimum. The value of fresh air through open windows can not be over emphasized.

Where crowding is unavoidable, as in street cars, care should be taken to keep the face so turned as not to inhale directly the air breathed out by another person.

It is especially important to beware of the person who coughs or sneezes without covering his mouth and nose. It also follows that one should keep out of crowds and stuffy places as much as possible, keep homes, offices, and workshops well aired, spend some time out of doors each day, walk to work if at all practicable—in short make every possible effort to breathe as much pure air as possible.

*"Cover up each cough and sneeze,
If you don't you'll spread disease."*

The health of the people must be the special concern of the State.—*Lloyd George.*

SIGNS OF DEATH IN MILITARY PRACTICE

Satre (*Presse Médicale*), states that leard's fluorescein injection and the acid reaction of the splenic pulp the procedure of Ambard and BrisseMOREL, have both given satisfactory results in sanitary formations at the front and afford certain information of actual death. Other procedures, of a physical order, have also given good results. The first is leard's forei-pressure method, based on the permanence or evanescence of the ischemia of the tissues induced by compression. Another is Lorain's old procedure of exposing the forearm, calf, or thigh to a flame; if the blister which forms is filled with air and bursts with a cracking noise leaving the dermis dry, the man is dead, whereas if the blister contains fluid, death is but apparent. Among the ocular signs, hypnotic shrinkage of the eyeball is not characteristic. More reliable and constant is the sign of Lecha Marzo; this consists in placing beneath the lids a strip of neutral litmus paper which turns red in a few minutes if the subject is dead, and blue if he is living. Other ophthalmic reactions comprise, rubefaction of the eyeball by ether instillation, the actual cautery, scraping the conjunctiva, application of copper sulphate subconjunctival saline instillations and injections, and the dionin reaction.

(Mo.)—Supreme Court will judicially notice, as matter of common knowledge, that period of human gestation is about ten lunar months, or 280 days.—*State v. Drummins*, 204 S. W. 271.

Supreme Court cannot take judicial notice of liability of child born 36 days or even 22 days short of ordinary period of gestation, any more than it can notice that such period in exceptional cases may extend beyond 10 calendar months.—*Id.*

(Tex. Court App.)—Physician's testimony as to defendant's sanity, based on observation of and conversation with defendant while in jail, was admissible whether defendant was warned or not as to use of physician's testimony against him, not being of criminative character in connection with case on trial.—*Coates v. State*, 203 S.W. 904.—*Medico-Legal Journal*.

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COMMENT FROM MONTH TO MONTH

Why Not Notification, Isolation and Quarantine in Influenza? Information is now to hand, through the columns of the *New York Medical Journal*, showing how a Norwegian steamer, on August 11th, 1918, first brought the influenza to the port of New York. That vessel had followed a zigzag course across the Atlantic—possibly to avoid submarine attack—alternating between the torrid zone and regions in which icebergs were encountered. Two hundred passengers had become ill, and it was believed by the medical officer on board that the symptoms pointed to reaction on account of atmospheric conditions. Eleven patients on arrival were seriously ill with pneumonia. They were removed to hospital and constant supervision exercised in their cases to prevent the transmission of infection. It does not appear that the balance of the 200 were isolated or quarantined—quarantine laws were relaxed owing to war conditions—but kept watch upon by the Bureau of Preventable Disease in New York. Other vessels soon followed, bringing their quota of patients. Had those 200 cases, and the others, been smallpox, bubonic plague, diphtheria, or cholera, how differently would the quarantine officers have acted! Yet on account of the relaxation—the safeguards to prevent the entry of communicable diseases of a danger-

ous character were for the time being all but suspended—and so this terrible scourge scattered death and destruction, disruption of business and education, and hardships of a most serious severity—great loss of money to some, and what is far greater, unheard of, almost, loss of life to others. It is impossible to think otherwise than that a vigorous effort should have been put forth by officials everywhere to prevent, or partly prevent, the overwhelming inroads of the disease into all communities.

The terrible toll of human life taken by influenza—and it is now fully conceded that this is no mere new disease—urgently calls for intensive consideration on the part of officers of health of notification, isolation, and quarantine, similarly as practised for other communicable diseases. It should not be dismissed by the too oft repeated statement as to its impracticability.

Mix says in his paper (*N.Y.M.J.*, Oct. 26th, 1918), "theoretically, it could have been kept out of the United States . . . that the contagion is not air-borne . . . the disease is always conveyed by contact with existing cases . . . the conclusion is inevitable that the infection is passed by contact from one person to another exactly as is measles . . . isolation may sometimes be extremely difficult because of the large number of cases in a given locality, but in army work and in institutions such isolation is absolutely feasible and should inevitably be carried out . . . it is not a simple task to take care of the situation when it has developed, but it may be perhaps a simple matter to prevent its development."

Copeland, Commissioner of Health, New York, discussing methods of prevention, etc.: "The disease is one which is spread to a large degree by contact IN THE HOME (the capitals are ours), and even if we went through some Utopian method of policing to confine every person to his or her home, it is doubtful whether the epidemic could be measurably diminished. . . . Those in private practice see the disease spread from one member to all other members in the same family in a way which would seem clearly to indicate contact in the home as the distinct cause." Holding to this belief, it is not surprising that New York did not close its schools, but it is rather surprising that when you had it in the home, that isolation could not be practicable, and the patients even quarantinable.

According to Harris, Director, Bureau of Preventable Diseases, Department of Health, New York, the disease was made reportable in that city about September 20th, and that it ranged from children under five to those over forty, the most occurring between twenty-five and thirty-five years of age. He points out

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that while in the pandemic of 1889-1890 males were chiefly attacked, in this one the females are equally so with the males; this fact is owing to the increasing number of females who in late years have entered industrial life. This statement somewhat conflicts with "home contact" assertions. Harris also states: "It will be realized in time, no doubt, that contact in the home was one of the most important, if not the most important, of all causes for the transmission of the disease throughout the community."

There is the whole case for notification, isolation, and quarantine in a nut-shell. How did it come about that Public Health Medicine, which has advanced by leaps and bounds in the last quarter of a century, to such an extent even, that communities which pay large sums for protection almost felt absolutely secure from any such wholesale ravager? It would be better to say it was impracticable after an intelligent and intensive effort had been exerted on behalf of prevention.

DIAGNOSTIC TEST OF DEATH

Dr. Lecha-Marzo, of Seville, an ophthalmologist, in the *Archives Medicales Belgae*, for March, says:

"The tissues and secretions of the eye are at first alkaline, then amphoteric and finally acid. While other tissues have been known to again become alkaline after acidity, this has never been seen in the eye, so that ocular acidity is proof of death. Moreover, in almost every case this acidity is precocious, appearing within the first eight hours. It has been recognized as early as a half hour after death. In this connection, at the author's eye clinic the tears have been tested in over 1,100 patients with various eye diseases, and in not a single instance was an acid reaction obtained. To practice the test, place a piece of litmus paper on the globe of the eye, beneath the lids, and then compress the latter. In the living subject the paper at once turns blue. If the subject is a cadaver there is either no change in the paper, or else a marked rose color appears."

It is based on the changes taking place in the tissues of the eye, and as he says, "is very simple."—*Medical Record*.



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RAVAGES OF THE INFLUENZA EPIDEMIC

(Department of Commerce, Bureau of the Census, Washington).

**DEATHS IN AMERICA GREATLY OUTNUMBER WAR'S CASUALTIES
AMONG AMERICAN TROOPS.**

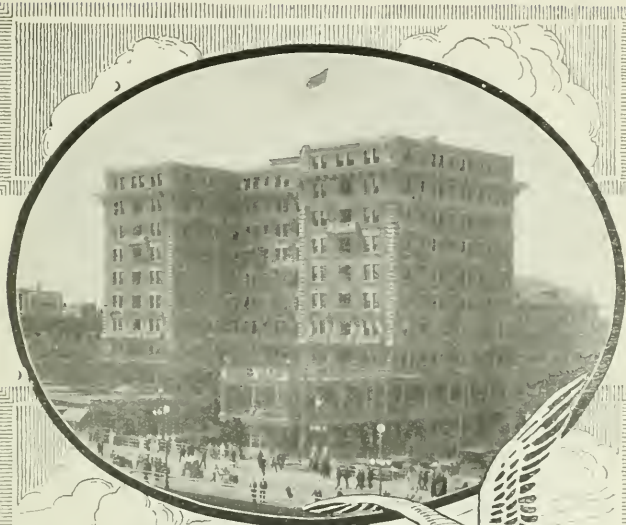
Washington, D.C., November 16, 1918. —The influenza epidemic has thus far taken a much heavier toll of American life than has the Great War. The total loss of life throughout the country is not known, but the Bureau of the Census has been publishing, for 46 large cities having a combined population estimated at 23,000,000, weekly reports showing the mortality from influenza and pneumonia. These reports, which cover the period from September 8 to November 9, inclusive, show a total of 82,306 deaths from these causes. It is estimated that during a similar period of time the normal number of deaths due to influenza and pneumonia in the same cities would be about 4,000, leaving approximately 78,000 as the number properly chargeable to the epidemic.

The total casualties in the American Expeditionary Forces have recently been unofficially estimated at 100,000. On the basis of the number thus far reported, it may be assumed that the deaths from all causes, including disease and accidents, are probably less than 45 per cent., and may not be more than 40 per cent. of the total casualties. On this assumption, the loss of life in the American Expeditionary Forces to date is about 40,000 or 45,000.

Thus, in 46 American cities having a combined population of only a little more than one-fifth the total for the country, the mortality resulting from the influenza epidemic during the nine-weeks' period, ended November 9, was nearly double that in the American Expeditionary Forces from the time the first contingent landed in France until the cessation of hostilities.

For the 46 cities taken as a group, the epidemic reached its height during the two weeks ended October 26, for which period 40,782 deaths were reported—19,938 for the week ended October 19, and 20,844 for the following week. Since October 26, however, the decline has been pronounced. During the week ended November 2, 14,857 deaths occurred, and during the following week only 7,798. The only city in which the number of deaths reported for the week ended November 9 exceeded the number occurring during the previous week was Spokane, Washington.

In general, the epidemic traversed the country from east to



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west. In a number of eastern cities—notably Boston, where the greatest mortality occurred during the week ended October 5—the largest number of deaths were reported for earlier periods than that which covered the height of the epidemic for the 46 cities taken as a group. On the other hand, in New Haven, New York, Pittsburg, and Rochester, the maximum mortality occurred somewhat later than in eastern cities generally. In Baltimore, Buffalo, and Philadelphia, the two-weeks' period ended October 26 showed the greatest number of deaths. For the entire nine-weeks' period, the greatest mortality due to the epidemic, in proportion to population—7.4 per one thousand—occurred in Philadelphia; and the next greatest—6.7 per one thousand—was reported for Baltimore.

BOOK REVIEW

The Medical Clinics of North America. July, 1918. Published bi-monthly. Philadelphia and London: W. B. Saunders Company. Canadian Agents: J. F. Hartz Co., Toronto.

This is an exceedingly able number for physicians, and embraces many excellent clinical articles which will be very valuable to all who read and reflect on them. The next number is to be on the work done at several of the base hospitals in various military camps of the United States. The first article will be by Surgeon-General Gorgas, on "Clinical Research in United States Army Base Hospitals."

THE SEQUELAE OF LA GRIPPE.—Among all the various acute and exhausting illnesses that afflict mankind, there is none that so generally results in distinct prostration as epidemic influenza, or La Grippe. Even the grippal infections which are uncomplicated or unaccompanied by serious organic changes are more than apt to leave the patient in a thoroughly devitalized condition after the acute febrile symptoms have subsided. It is for this reason that the treatment of La Grippe convalescence is of special importance. The anemic, debilitated, depressed patient requires a systemic "booster" that will not only stimulate but revivify and reconstruct. It is distinctly wise, in such cases, to commence vigorous tonic treatment as early as possible, preferably by means of Pepto-Mangan (Gude), the hemic builder and general reconstituent. This standard hematinic increases the vital elements of the circulating blood and, by increasing the appetite and improving the absorptive and assimilative functions, quickly restores both hemic and general vitality.



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